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CONTINUATION OF HYDROGRAPHIC, PLANKTON, AND DREDGING RECORDS OF THE SCRIPPS INSTITUTION FOR BIOLOGICAL RESEARCH OF THE UNIVERSITY OF CALIFORNIA

(1913-1915)

COMPILED AND ARRANGED UNDER THE SUPERVISION OF
W. E. RITTER

BY
ELLIS L. MICHAEL
Zoologist and Administrative Assistant

GEORGE F. McEWEN
Hydrographer

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INTRODUCTION

Experience gained through the marine explorations of the Scripps Institution demonstrates that variations in hydrographic as well as in many strictly biological conditions decidedly influence the vertical and horizontal movements of marine organisms, their abundance at any particular time and place, and many aspects of their life-histories and relations to one another. In fact, such hydro-biological relations are too complex, by far, to be discovered without numerous and detailed hydrographic observations corresponding in time and place to the biological ones. Not only is this true, but the variability in temperature and salinity, not to mention that of many other elements, is so great and its causes so complex as to demand much more continuous investigation than has been thus far possible. With these considerations in view, the Scripps Institution has temporarily discontinued its systematic plankton explorations, and, instead, is devoting time and energy to devising methods and equipment more suitable for conducting the more intensive researches required. It seems probable, therefore, that the next series of investigations will differ in many important respects from those already made. For this reason, together with the fact that a summary of all the hydrographic results is ready for the press, it is desirable to bring the publication of our crude data to date.

The present paper, therefore, includes the field data relative to all hydrographic and biological collections made since 1912. Since that time, no soundings, gas analyses, or current-meter observations have been made, and the hydrographic data relate entirely to temperatures and salinities. Similarly, dredging and trawling have been temporarily discontinued, except for museum and supply purposes; hence, the biological data relate only to plankton collections.

The apparatus, methods of collecting, methods of laboratory measurement, and methods of detecting errors employed during this period were essentially the same as those formerly (1915) described. A new serial closing apparatus has been added to the collecting equipment, and attachments have been made to the Kofoid closing water bottle; these additions are, therefore, briefly described. Furthermore, the criteria used for rejecting doubtful hydrographic observations were not treated fully enough in our former report (1915, pp. 21, 26) to avoid the incorrect implication that certain observations may have been omitted through oversight. Accordingly, these criteria are rediscussed under the proper heading.

A. COLLECTING APPARATUS AND EXAMINATION OF DATA FOR ERRORS

1. NEW APPARATUS

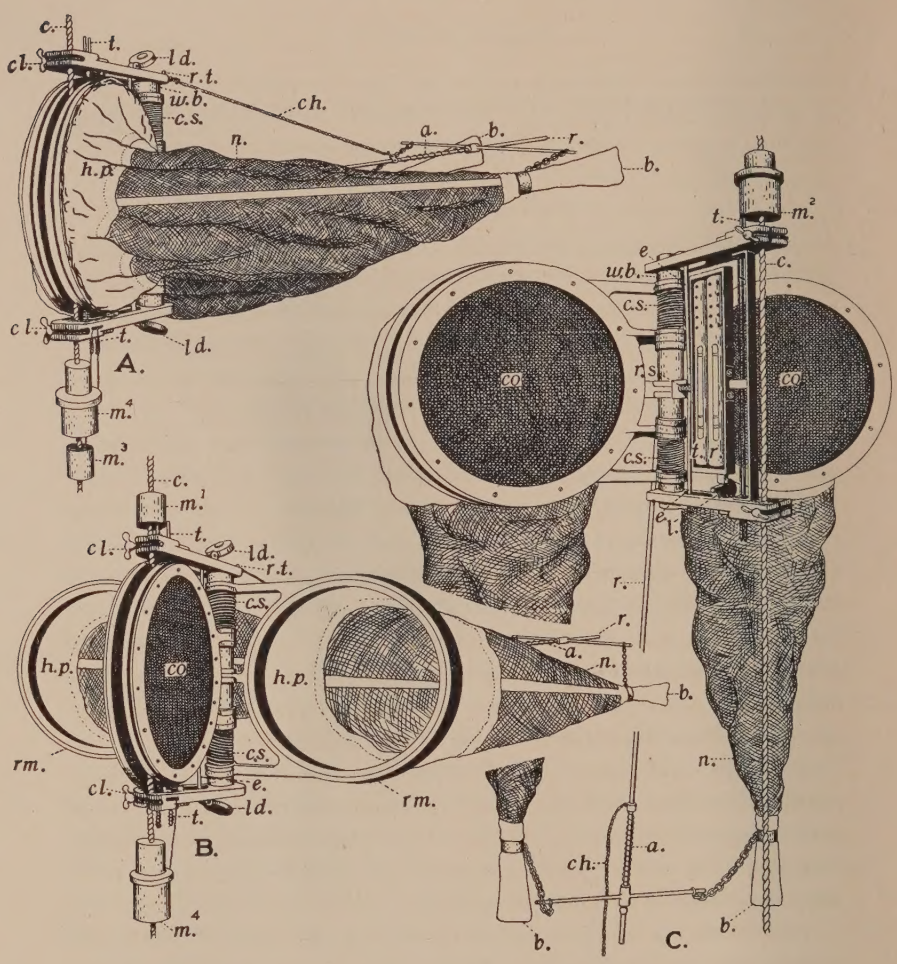
a. Serial closing apparatus.—The first step toward more intensive and continuous investigations consisted in devising an apparatus combining the essential advantages of the Kofoid closing net (Kofoid, 1911) and Ekman reversing water bottle (Ekman, 1905). Thanks to the mechanical ingenuity of our engineer, Mr. James Ross, two such pieces of apparatus have been constructed (text-figs. A, B, and C). They are not only adapted to simultaneous operation on the same cable, but have the additional advantage that two "equivalent" horizontal closing nets form an essential part of each. The two nets lie about six inches apart on opposite sides of the cable (text-figs. B and C), and, since they are operated simultaneously, duplicate hauls are made at each depth—one net thus acting as a check against the other. In connection with each pair of nets, a rack (*t.r.*) for holding two reversing thermometers and a small bottle (*w.b.*) for securing water samples are provided, which are operated upon closure of the nets. Each serial closing apparatus, therefore, consists essentially of two "equivalent" closing nets, a thermometer rack, and a water-sample bottle. The two already constructed weigh approximately fifty pounds apiece, but it is proposed that the next ones shall be made materially lighter. This can be accomplished by pressing out the metal parts instead of casting and machining them.

After each apparatus is clamped onto the cable and lowered to the desired depth, a messenger is dropped which opens the first pair of nets and releases a similar messenger which opens the second pair, etc. After the desired length of time, another messenger is dropped which closes the first pair of nets, reverses the thermometers, secures the water sample, and releases a similar messenger which operates the second apparatus in the same way, and so on for the whole series.

Important advantages of this apparatus are:

1. Duplicate closing-net hauls and corresponding temperatures and water samples obtained simultaneously at each of a series of depths.

2. Reversal of the thermometer rack closes the water bottle, which makes it mechanically impossible for the thermometer to register at



Abbreviations

a.—accumulator spring.	*ld.*—water-bottle lid.
b.—net-bucket.	m^1. and m^3.—opening messengers.
c.—cable.	m^2. and m^4.—closing messengers.
ch.—supporting chain.	*n.*—netting.
cl.—clamp for attaching apparatus.	*r.*—supporting rod.
co.—closing cover.	*rm.*—net rim (37 cm. diameter).
c.s.—coiled spring.	*r.s.*—rack spring.
e.—excentric rod.	*r.t.*—rod trip.
h.p.—headpiece of net (impervious).	*t.*—messenger trips.
l.—latch for locking rack (*t.r.*).	*t.r.*—thermometer rack.
w.b.—water bottle.	

Figs. A–C. Operation of Serial Closing Apparatus

Fig. A. Nets closed, ready for descent. Note especially the following: the clamps (*cl.*) by which the apparatus is attached to the cable (*c*); rod trip (*r.t.*) which, upon closure of water-bottle lids (*ld.*), releases the chain (*ch.*) supporting terminal end of rod (*r.*); tension on nets due to accumulator spring (*a*), which insures proper adjustment of *T* on supporting rod *r.*; net buckets (*b*), consisting of stork sheeting which has proved more satisfactory than bronze; messengers (m^3 and m^4) suspended from lower ends of trips (*t*) in readiness for opening and closing next lower pair of nets.

Fig. B. After descent of first messenger, m^1.; nets open, ready for towing. Note especially the following: position of net rims (*rm*), which have been turned by the coiled springs (*c.s.*) at right angles to the closing covers (*co.*), the latter remaining in same position as in figure A; closing covers (*co.*) consist of bronze rims to which copper screening of finer mesh than netting is attached (this is readily replaced by thin bronze plates when small-meshed nets are used); water bottle (*w.b.*) also serves as axis about which net rims (*rm.*) have revolved; messenger m^3., shown in figure A, has been released.

Fig. C. After descent of second messenger, m^2.; nets closed, water bottle (*w.b.*) closed, thermometer rack (*t.r.*) reversed, and supporting rod (*r.*) released, ready for hoisting. Note especially the following: *perspective at right angles* to that of figures A and B; excentric rods *e.* (shown also in figure B), by which water-bottle lids (*ld.*) were closed when thermometer rack (*t.r.*) was reversed by the rack spring (*r.s.*) and locked by the latch (*l.*), all of which is possible only after both closing covers (*co.*) have revolved against the net rims (*rm.*); messenger m^4., shown in figures A and B, has been released.

one depth and the bottle to close at another, *regardless of the inclination of the cable.*

3. It is mechanically impossible for the thermometers to reverse or the water bottle to close unless both nets are closed; thus, a valuable means is at hand for determining the approximate depth of closure in case it differs from that indicated by the amount of cable out.

4. The heavy weight suspended from the end of the cable may remain submerged when attaching and removing the apparatus, thus permitting collecting in rougher seas than would otherwise be possible.

5. The rod (*r.*) to which the net buckets (*b.*) are attached is so supported from the frame that when the nets are closed it is released and hangs below the frame (compare figs. A and C), while the apparatus is being hoisted, thus preventing undue strain upon the netting.

The only disadvantages so far suggested are three:

1. The dynamical pressure of water on more than two of the duplicate nets of each apparatus may so deflect the cable as to prevent the messengers from properly opening or closing the nets, unless a weight of at least fifty pounds is suspended from the end of the cable for each apparatus attached.

2. Even under the most favorable conditions of the sea, it is difficult and cumbersome to attach a fifty-pound apparatus to and remove it from the cable.

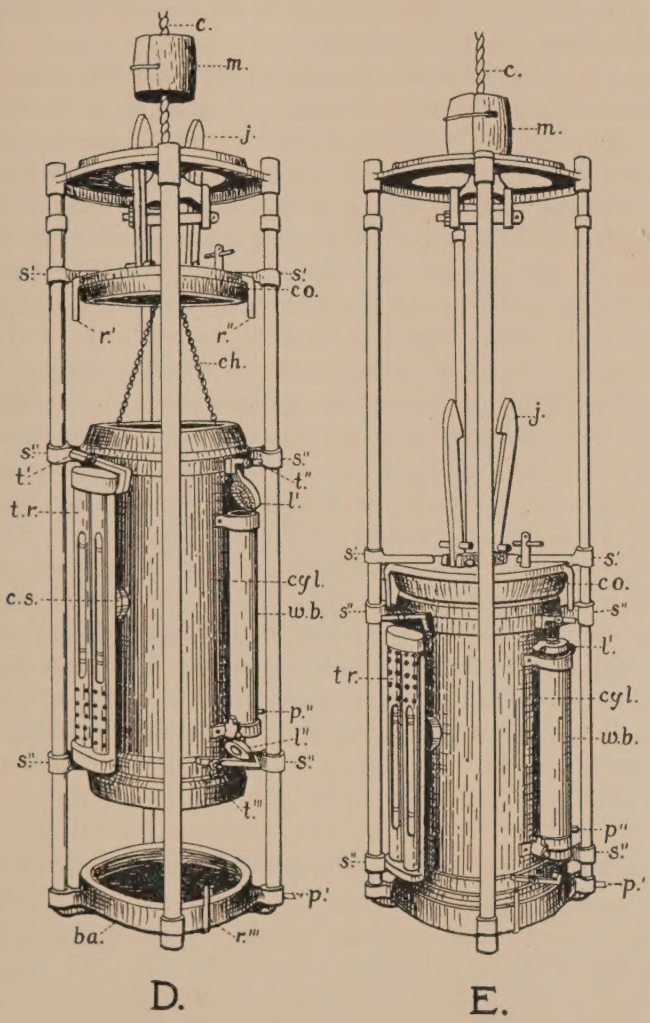
3. The covers (*co.*) which project in front of the orifices of the nets when open (fig. B), may modify the pressure-distribution of inflowing water so as to reduce significantly the rate of filtration.

How serious these disadvantages are remains to be determined. As stated on page 209, the second can be largely overcome by pressing out instead of casting the metal parts of the apparatus. Moreover, the preliminary collections made during May, 1915 (water samples 4918–5019, table 1; hauls 4062L–4205R, table 3) were much more satisfactory than we had reason to anticipate, because the cable then in use did not permit attaching as heavy a weight as seemed necessary. In spite of this, only eight cases were imperfect out of seventy-two operations, and these were due to insufficient tension on the closing trips. Furthermore, in the twenty-eight trials made on the last day, May 16, only one case of imperfect operation was discovered. On the whole, these results are very encouraging, but as further experience will probably suggest certain desirable modifications of the apparatus, a detailed description is not given.[1]

b. Attachments to the Kofoid water bottle.—To meet the requirements of a microplankton trip made during September, 1913, two mechanically independent attachments were added to the Kofoid water bottle (Kofoid, 1905) in order to permit the use of reversing thermometers, and to obtain an additional sample of water for salinity determination (text-figs. D and E). The temperature *in situ* is always given more accurately by reversing thermometers than by estimates based on the temperature of any sample inclosed in a non-insulated water bottle, and, as pointed out formerly (1915, p. 14), it has been impossible to make any such estimate for depths exceeding 350 meters. Again, in order to avoid withdrawing any of the organisms contained in the Kofoid bottle itself, the attachment for obtaining an additional water sample was added.

Frequent testing before and during actual collecting gave no evidence of defective operation. But the nature and degree of correlations between temperature and depth, salinity and depth, and temperature and salinity demonstrated that in fully ninety per cent of the 176 subsurface hauls made, the Kofoid bottle closed at some unknown depth significantly less than that indicated by the amount of cable out. Indeed, it seems probable that the remaining nineteen

[1] During the summer of 1916 about two hundred trials of this apparatus were made from the U. S. S. "Albatross." The very satisfactory results of this severe test proved the apparatus to be fully as reliable and durable as the Ekman water bottle.



Figs. D and E. Kofoid closing water bottle, showing thermometer rack and small water-sample bottle attached. *D.* Apparatus set for tripping by messenger. *E.* After closure of both bottles and reversal of thermometer rack. *Operation:* messenger (*m.*) descends cable (*c.*) and spreads jaws of clutch (*j.*), thus releasing cover (*co.*) and cylinder (*cyl.*) supported from it by a brass chain (*ch.*) which, dropping upon base (*ba.*), closes bottle. Alignment of cover and cylinder with base maintained by guiding sleeves (*s'* and *s''*). In closing, projecting rods (*r'*, *r''*, and *r'''*) strike corresponding trips (*t'*, *t''*, and *t'''*), which releases thermometer rack (*t.r.*), allowing coiled spring (*c.s.*) to reverse it, and the two lids (*l'* and *l''*) of the water-sample bottle (*w.b.*) to snap shut. Water is withdrawn from large and small bottles by removing plugs (*p'* and *p''*).

hauls were also contaminated, and that the corresponding temperatures and salinities were erroneous.

The precise reason for such repeated failure is unknown. It is true that the guiding sleeves (text-figs. D and E, *s′*) of the cover of the Kofoid bottle had become worn during years of previous use, and it is possible that the trouble was largely caused by the undue "play" of these sleeves combined with a possible inequality in tension of the thermometer and water-bottle trip-springs, and the usual inclination of the cable. It does not seem likely that the trouble was entirely due to the worn sleeves, since the bottle rarely failed to close properly prior to the addition of the attachments.

However, whatever the cause of defective operation may have been, the relations observed between the temperatures and corresponding salinities could not have arisen had the apparatus operated properly. On the whole, the hydrographic results can be accounted for only on the assumption that the depths at which the thermometers reversed, those at which the water-sample bottle closed, and those at which the Kofoid bottle closed differed materially and in an erratic way from each other and from the depths indicated by the amount of cable out. In fact, the depths indicated by temperatures and those indicated by the corresponding salinities proved to be so discordant as to preclude estimating, even roughly, the correct depth in any one case. For this reason, while all the subsurface hauls, because of their biological value, are entered in table 3, the corresponding hydrographic data are not tabulated.

2. ERRORS IN TEMPERATURE, SALINITY, AND DEPTH

All hydrographic observations are subject to several important sources of error. Some errors are inherent in the instrument used, and some are due to occasional mistakes, but the most difficult to detect are consequent upon the impossibility of constructing any piece of oceanographic apparatus that will not occasionally operate defectively. The causes of defective operation are exceedingly numerous, and, as stated formerly (1915, p. 21): "we doubt if anyone who has not been in actual charge of such work could anticipate the extent to which trouble is nearly always encountered." Even though all practicable precautions are taken, important errors unexpectedly arise, making it necessary to examine critically each series of observations in order to detect the erroneous ones and to reject those that may be misleading.

a. Reasons for rejecting temperatures taken prior to June, 1908.—During the preliminary explorations made between August, 1901, and June, 1908, about seventy-five surface temperatures were taken with ordinary chemical thermometers. Through oversight, their readings were recorded without making the necessary calibration correction, and, unfortunately, the thermometers were either lost or broken before August, 1908, when it was discovered that the recorded temperatures were subject to calibration errors. At this time, calibration of the thermometer that had been used during the two preceding months revealed an error ranging from 0°.9 to 1°.5 C, thus indicating that all seventy-five temperature observations were subject to calibration errors approximating two degrees Centigrade.

Even so, the records might have been of some biological value were it not for serious discrepancies between the positions of the temperature observations and those of the corresponding biological collections. The magnitudes of these discrepancies, for the most part, are unknown, but the records indicate that they must have frequently exceeded five miles. Since differences of two degrees have often been observed within a distance of two miles (McEwen, 1916), it follows that, for biological investigations, these preliminary temperature records are subject to an erratic error whose maximum approximates the observed annual range of seven degrees. Needless to say, such misleading temperatures are worse than none, and accordingly were not published in our former (1915) report.

b. Methods of detecting and rejecting doubtful subsurface observations.—In addition to mistakes which are not entirely avoidable, there are two sources of troublesome error affecting the measurement of temperature, and two affecting the measurement of salinity. Even the best reversing thermometers occasionally register incorrectly because the mercury column does not always break at the constriction. Likewise, the best containers may occasionally permit sufficient evaporation to increase the salinity materially if the water samples are not tested soon after being collected. While such errors are usually large enough to be revealed as soon as the measurements are made, they may be so small as to require for their detection special examination of all temperatures and salinities of the corresponding series. Finally, the collecting apparatus is designed to operate on a vertical cable, and, in case of undue inclination of the latter, the thermometers may either not reverse at all or may register at some higher level; similarly, the water bottle may either fail to close entirely or may close at a

higher level. Moreover, even when the cable is vertical and careful testing indicates that the apparatus is working properly, the thermometers occasionally reverse and the water bottle occasionally closes at a higher level.

On those few occasions when such an error in depth is immediately indicated by the temperature reading, the observation is, of course, repeated. In the majority of cases, however, a depth error made during any particular cruise can be discovered only after all the observations have been critically examined. Since the apparatus employed is designed to insure the simultaneous reversal of thermometers and closure of the water bottle, determination of the source and magnitude of temperature errors requires consideration of the corresponding salinities and densities *in situ;* similarly, determination of the source and magnitude of salinity errors requires consideration of the corresponding temperatures.

As indicated on page 212, correlation tables are drawn up between temperature and depth, salinity and depth, and temperature and salinity, and, if necessary, the results are compared with previous data obtained under similar conditions. These tables, together with the fact that the density *in situ* must increase with an increase in depth (Michael and McEwen, 1915, p. 25), and that temperature and salinity curves must have certain well defined limits for any particular month and position (McEwen, 1916), form our main criteria for isolating erroneous observations.

Among the observations thus isolated, the temperatures are usually so correlated with the corresponding salinities as to suggest errors in depth rather than in either temperature or salinity. Accordingly, the depth is regarded as unknown and is determined indirectly from the temperature, and checked by a similar determination from the corresponding salinity. If both agree, it is concluded that the thermometers reversed and the water bottle closed at the depth thus indicated, and the data are so tabulated. Usually, only a few erroneous observations remain which cannot be thus corrected, and these are rejected if it is clear that the values will be misleading; otherwise, they are retained but questioned. It may be well to add that defective plankton hauls, while corrected for depth errors when possible, are never rejected.

B. TABULATION OF DATA

1. GENERAL EXPLANATION OF TABLES

a. Arrangement.—For convenience in tabulation and reference, the data are presented in three tables. The hydrographic data, because of their intrinsic value, are tabulated first. Therefore the data relative to all temperature and salinity observations made since 1912 in the ocean and in San Diego Bay are tabulated in tables 1 and 2 respectively. Finally, the field data relative to all plankton collected since 1912 for quantitative investigation are tabulated in table 3. All three tables are arranged on the same general plan.

b. Recording of position.—All positions are entered in latitude and longitude measured from Greenwich. Whenever the position is known to have varied by more than one quarter mile during a single collecting period, the latitude and longitude relative to each water sample and net haul are not entered as such: instead, the initial and final position together with this statement are given: "From ..... to ..... the boat drifted (or steamed) from the above to the following position," the blanks being filled in with the times corresponding to the two positions. In all other cases the position corresponding to each observation is entered.

c. Meaning and use of sections.—For readily specifying the approximate position of observations, the region explored has been divided into rectangular sections whose east and west boundaries are five minutes in latitude, and whose north and south boundaries are five minutes in longitude. The exact position of the center of each section is specified by either a *number* giving its distance (in units of 5′) *west*, or a *negative* number giving its distance *east*, of 114° W, and either a *subscript* giving its distance *north* or an *exponent* giving its distance *south* of 32° N. The two base lines, 32° N and 114° W, were chosen entirely with reference to explorations, past and future, of the Scripps Institution, the former in order to avoid the need of large subscripts, and the latter in order to exclude large numbers and avoid the need of referring to observations east of the selected meridian. We did not contemplate making observations south of Cerros Island, which lies in the fourteenth section west of 114° W, but, during the winter of 1914, opportunity was unexpectedly offered for taking a few

samples in the vicinity of the Gulf of California, 109° W. Although those observations made within the gulf itself are not referred to by sections but by the letter *G*, those outside and in the vicinity of the Gulf require another form of reference, whence the use of negative numbers.

Any section cut by the coast line is designated in one of three ways: when its center is within 2′.5 west (or east) of the coast, the *number is bracketed;* when it is within 2′.5 north or south, the *subscript or exponent,* as the case may be, *is bracketed;* when it is within 2′.5 both east or west and north or south, the *entire symbol is bracketed.* For example, $(40)_{10}$ refers to a section whose center is within 2′.5 west of the coast, $55_{(24)}$ to one whose center is within 2′.5 south of the coast, and (39_{10}) to one whose center is within 2′.5 north and west of the coast. A more detailed discussion of "sections" is given on pages 46 to 48 of our former (1915) report, and three maps are published by McEwen (1916) which show the approximate number of observations made from 1901 to 1915 in each section between Point Conception and Cerros Island.

EXPLANATION OF TABLE 1

This table includes the data relative to all the hydrographic observations made in the ocean from 1913 to 1915, inclusive, except those made off Coronado Pier in connection with special observations in San Diego Bay.

First column.—Water-sample numbers entered in chronological order.

Second column.—Time when the sample was obtained, entered to the nearest minute.

Third column.—Section; for explanation see page 217. The letter *G* indicates that the sample was taken in the Gulf of California.

Fourth and fifth columns.—Latitude and longitude entered to the nearest 0′.1 when the error was within 0′.5, and to the nearest minute when the error was larger; for method of tabulating see page 217; for discussion of errors see pages 18 to 21 of our former (1915) report.

Sixth column.—Depth of sample, entered to the nearest meter above and to the nearest five below 200 meters; for discussion of errors see page 20 of our former (1915) report.

Seventh column.—Temperature *in situ;* all surface temperatures were determined by a thermometer (L. Steger, Kiel) reading directly to 0°.2 C, and the values entered may be regarded as accurate to 0°.05 C. Subsurface temperatures were determined by either Richter or Negretti-Zambra reversing thermometers (Helland-Hansen, 1911–1912, pp. 58–62), and the values entered are accurate to within 0°.01–0°.05 C. Omitted entries indicate either that no temperature

was taken or that an error was discovered (see p. 216) whose magnitude made the entry valueless.

Eighth, ninth, and tenth columns.—Specific gravity of the sample under atmospheric pressure, the 1.0 being omitted; $S\frac{0^\circ}{4^\circ}$ that of the sample at 0° C referred to distilled water at 4°.0 C; $S\frac{17^\circ.5}{17^\circ.5}$ that of the sample at 17°.5 C referred to distilled water at 17°.5 C; $S\frac{t^\circ}{4^\circ}$ density *in situ* referred to distilled water at 4°.0 C.

Eleventh column.—Salinity *per mille* determined by the "sinker method" (see former report, 1915, pp. 32–37), unless followed by the letter *P*, which indicates a pycnometer determination (see former report, pp. 28–30). Omission of salinity and specific gravity entries signifies either that no water sample was taken or that an error was discovered whose magnitude made the observation valueless. A question mark (?) indicates that a smaller error in depth, temperature, or salinity is suspected (see p. 216).

TABLE 1.—OCEAN DATA

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: $\frac{0°}{4°0}$	Specific gravity: $\frac{17°5}{17°5}$	Specific gravity: $\frac{t°}{4°0}$	Salinity S ‰
			February 14, 1913							
3841	11:25 a.m.	39_7	32° 37.0	117° 14.5	0	13.4	2688	2555	2513	33.45 P
3842	11:44 a.m.	39_7	32 34.5	117 14.5	0	13.6	2692	2559	2513	33.50 P
3843	11:59 a.m.	39_6	32 32.3	117 14.4	0	13.5	2688	2555	2511	33.45 P
3844	12:15 p.m.	39_6	32 30.3	117 14.4	0	13.6	2689	2556	2510	33.46 P
3845	12:30 p.m.	39_6	32 28.3	117 14.4	0	13.5	2689	2556	2512	33.46 P
3846	12:46 p.m.	39_5	32 26.2	117 14.3	0	13.5	2695	2562	2518	33.54 P
3847	12:59 p.m.	39_5	32 24.4	117 14.3	0	13.7	2689	2556	2508	33.46 P
			February 15, 1913							
3848	7:45 a.m.	39_5	32 24.4	117 14.3	8	13.03	2690	2557	2522	33.48
3849	7:55 a.m.	39_5	32 24.4	117 14.3	12	13.23	2691	2558	2519	33.49
3850	8:00 a.m.	39_5	32 24.4	117 14.3	10	13.23	2689	2556	2517	33.47
3851	8:04 a.m.	39_5	32 24.4	117 14.3	7	13.23	2694	2561	2522	33.53
3852	8:08 a.m.	39_5	32 24.4	117 14.3	5	13.33	2696	2563	2522	33.55
3853	8:12 a.m.	39_5	32 24.4	117 14.3	0	13.3	2690	2557	2517	33.48 P
3854	8:45 a.m.	40_4	32 22.4	117 21.2	0	13.8	2692	2559	2509	33.50 P
3855	9:42 a.m.	40_4	32 22.4	117 21.2	0	13.9	2683	2551	2498	33.93 P
3856	9:55 a.m.	40_4	32 22.4	117 21.2	0	13.8	2688	2555	2505	33.45 P
3857	11:42 a.m.	40_4	From 9:55 a.m. to		0	13.9	2688	2555	2503	33.45 P
3858	12:05 p.m.	40_4	2:55 p.m. the boat		0	13.85	2683	2551	2499	33.39 P
3859	12:50 p.m.	40_4	drifted from the		660	5.05	2766	2630	2723	34.42 P
3860	1:15 p.m.	40_4	above position		5	13.83	2688	2555	2504	33.45
3861	1:20 p.m.	40_4	to the following		7	13.78	2688	2555	2505	33.45
3862	1:23 p.m.	40_4	position		10	13.63	2689	2556	2509	33.47
3863	1:26 p.m.	40_4			12	13.58	2689	2556	2510	33.47
3864	1:28 p.m.	40_4			17	13.58	2689	2556	2510	33.47
3865	1:30 p.m.	40_4			15	13.58	2689	2556	2510	33.47
3866	1:32 p.m.	40_4			20	13.53	2688	2555	2510	33.45
3867	1:35 p.m.	40_4			25	13.18	2684	2552	2514	33.40
3868	1:39 p.m.	40_4			30	12.82	2681	2549	2519	33.37
3869	1:43 p.m.	40_4			40	12.92	2687	2554	2521	33.44 P
3870	1:45 p.m.	40_4			50	12.37	2689	2555	2534	33.47
3871	1:50 p.m.	40_3			60	12.04	.....	.....	.....	.....
3872	1:54 p.m.	40_3			75	11.40	2696	2562	2560	33.55
3873	2:00 p.m.	40_3			90	10.90	2705	2572	2578	33.66
3874	2:05 p.m.	40_3			100	10.30	2709	2575	2592	33.71
3875	2:10 p.m.	40_3	32° 16.7	117° 19.0	0	14.1	2686	2554	2479	33.42 P
3876	2:40 p.m.	40_4	32 18.5	117 17.7	0	14.0	2686	2554	2499	33.42 P
3877	3:00 p.m.	39_4	32 20.8	117 16.0	0	14.2	2681	2549	2500	33.36 P
3878	3:20 p.m.	39_5	32 23.0	117 14.0	0	14.0	2686	2554	2499	33.42 P
3879	3:40 p.m.	39_5	32 24.4	117 14.3	0	13.9	2697	2564	2512	33.57 P
			February 16, 1913							
3880	6:40 a.m.	40_4	32 22.4	117 21.2	0	13.4	2694	2561	2519	33.52 P
3881	6:48 a.m.	40_4	32 22.4	117 21.2	1100	3.66	2775	2637	2747	34.53 P
3882	7:20 a.m.	40_4	32 22.4	117 21.2	800	4.60	2771	2633	2733	34.48 P
3883	7:45 a.m.	40_4	32 22.4	117 21.2	500	6.10	2761	2625	2706	34.36 P
3884	8:00 a.m.	40_4	32 22.4	117 21.2	200	.....	2752	2616	.....	34.25 P
3885	8:10 a.m.	40_4	32 22.4	117 21.2	150	9.42	2738	2603	2635	34.07 P
3886	8:14 a.m.	40_4	32 22.4	117 21.2	0	13.5	2692	2559	2515	33.50 P
3887	8:15 a.m.	40_4	32 22.4	117 21.2	125	9.77	2729	2594	2621	33.96 P
3888	8:23 a.m.	40_4	32 22.4	117 21.2	100	10.37	2707	2573	2589	33.69 P
3889	8:29 a.m.	40_4	32 22.4	117 21.2	75	11.47	2700	2566	2563	33.60 P
3890	8:35 a.m.	40_4	32 22.4	117 21.2	60	12.55	2694	2561	2535	33.53 P
3891	8:40 a.m.	40_4	32 22.4	117 21.2	50	12.75	2694	2561	2531	33.53 P
3892	8:45 a.m.	40_4	32 22.4	117 21.2	40	12.88	2692	2559	2526	33.50 P
3893	8:48 a.m.	40_4	32 22.4	117 21.2	30	13.15	2691	2558	2521	33.49 P
3894	8:53 a.m.	40_4	32 22.4	117 21.2	25	13.43	2690	2557	2513	33.48 P
3895	8:55 a.m.	40_4	32 22.4	117 21.2	20	13.48	2688	2555	2511	33.46
3896	8:58 a.m.	40_4	32 22.4	117 21.2	17	13.48	2688	2555	2511	33.46
3897	9:02 a.m.	40_4	32 22.4	117 21.2	15	13.48	.....	.....	.....	.....
3898	9:04 a.m.	40_4	32 22.4	117 21.2	12	13.48	2689	2556	2512	33.47
3899	9:06 a.m.	40_4	32 22.4	117 21.2	10	13.48	2692	2559	2515	33.50 P

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°0	Specific gravity: 17°5 S/17°5	Specific gravity: t° S/4°0	Salinity S ‰
			February 16, 1913							
3900	9:08 a.m.	40_4	32 22.4	117 21.2	7	13.53	2690	2557	2512	33.48
3901	9:10 a.m.	40_4	32 22.4	117 21.2	5	13.53	2687	2554	2509	33.44
3902	9:12 a.m.	40_4	32 22.4	117 21.2	0	13.6	2689	2556	2510	33.47 P
3903	9:45 a.m.	40_5	32 23.5	117 18.0	152	9.62	2746	2611	2640	34.17 P
3904	9:50 a.m.	40_5	32 23.5	117 18.0	0	13.4	2689	2556	2514	33.47 P
3905	9:53 a.m.	40_5	32 23.5	117 18.0	125	9.92	.....	.....	.....	.....
3906	9:59 a.m.	40_5	32 23.5	117 18.0	100	10.12	2722	2588	2607	33.87 P
3907	10:05 a.m.	40_5	32 23.5	117 18.0	75	10.77	2706	2573	2581	33.68 P
3908	10:10 a.m.	40_5	32 23.5	117 18.0	60	12.17	2694	2561	2543	33.52 P
3909	10:15 a.m.	40_5	32 23.5	117 18.0	50	12.62	2691	2558	2531	33.49 P
3910	10:18 a.m.	40_5	32 23.5	117 18.0	40	12.67	2691	2558	2530	33.49 P
3911	10:22 a.m.	40_5	32 23.5	117 18.0	30	13.18	2690	2557	2519	33.48 P
3912	10:26 a.m.	40_5	32 23.5	117 18.0	25	13.23	2691	2558	2519	33.49 P
3913	10:30 a.m.	40_5	32 23.5	117 18.0	20	13.23	2694	2561	2522	33.52 P
3914	10:33 a.m.	40_5	32 23.5	117 18.0	17	13.23	2690	2557	2518	33.48 P
3915	10:36 a.m.	40_5	32 23.5	117 18.0	15	13.23	2692	2559	2520	33.50 P
3916	10:38 a.m.	40_5	32 23.5	117 18.0	12	13.23	2693	2560	2521	33.51 P
3917	10:41 a.m.	40_5	32 23.5	117 18.0	10	13.28	2693	2560	2521	33.51 P
3918	10:43 a.m.	40_5	32 23.5	117 18.0	5	13.38	.....	.....	.....	.....
3919	10:46 a.m.	40_5	32 23.5	117 18.0	75	10.71	.....	.....	.....	.....
3920	10:50 a.m.	40_5	32 23.5	117 18.0	0	13.55	2689	2556	2511	33.46 P
3921	11:00 a.m.	39_5	32 24.0	117 17.0	91	10.40	2715	2581	2596	33.78 P
3922	11:05 a.m.	39_5	32 24.0	117 17.0	0	13.6	2694	2561	2515	33.53 P
3923	11:07 a.m.	39_5	32 24.0	117 17.0	75	10.50	2709	2576	2589	33.71 P
3924	11:12 a.m.	39_5	32 24.0	117 17.0	60	11.92	2698	2565	2552	33.57 P
3925	11:15 a.m.	39_5	32 24.0	117 17.0	50	12.55	2693	2560	2534	33.51 P
3926	11:18 a.m.	39_5	32 24.0	117 17.0	40	12.90	.....	.....	.....	.....
3927	11:22 a.m.	39_5	32 24.0	117 17.0	30	13.15	2694	2561	2524	33.53 P
3928	11:26 a.m.	39_5	32 24.0	117 17.0	25	13.15	.....	.....	.....	.....
3929	11:29 a.m.	39_5	32 24.0	117 17.0	20	13.28	.....	.....	.....	.....
3930	11:33 a.m.	39_5	32 24.0	117 17.0	17	13.30	2691	2558	2518	33.49 P
3931	11:35 a.m.	39_5	32 24.0	117 17.0	15	13.33	2692	2559	2518	33.50 P
3932	11:38 a.m.	39_5	32 24.0	117 17.0	12	13.33	2693	2560	2519	33.51 P
3933	11:40 a.m.	39_5	32 24.0	117 17.0	10	13.38	2692	2559	2517	33.50 P
3934	11:42 a.m.	39_5	32 24.0	117 17.0	5	13.45	2693	2560	2517	33.51 P
3935	11:43 a.m.	39_5	32 24.0	117 17.0	0	13.8	2696	2563	2503	33.55 P
3936	11:55 a.m.	39_5	32 24.1	117 16.3	60	11.23	2705	2572	2571	33.66 P
3937	12:01 p.m.	39_5	32 24.1	117 16.3	0	13.85	.....	.....	.....	.....
3938	12:03 p.m.	39_5	32 24.1	117 16.3	50	12.45	.....	.....	.....	.....
3939	12:07 p.m.	39_5	32 24.1	117 16.3	40	12.83	2690	2557	2515	33.48 P
3940	12:10 p.m.	39_5	32 24.1	117 16.3	30	13.23	2690	2557	2518	33.48 P
3941	12:13 p.m.	39_5	32 24.1	117 16.3	25	13.23	.....	.....	.....	.....
3942	12:17 p.m.	39_5	32 24.1	117 16.3	20	13.28	2693	2560	2520	33.51 P
3943	12:19 p.m.	39_5	32 24.1	117 16.3	17	13.28	2692	2559	2519	33.50 P
3944	12:23 p.m.	39_5	32 24.1	117 16.3	17	13.30	2691	2558	2518	33.49 P
3945	12:26 p.m.	39_5	32 24.1	117 16.3	12	13.33	2690	2557	2516	33.48 P
3946	12:28 p.m.	39_5	32 24.1	117 16.3	10	13.38	2693	2560	2518	33.51 P
3947	12:31 p.m.	39_5	32 24.1	117 16.3	5	13.48	2689	2556	2512	33.46 P
3948	12:32 p.m.	39_5	32 24.1	117 16.3	0	13.8	2688	2555	2505	33.45 P
3949	12:50 p.m.	39_5	32 24.4	117 16.0	25	13.33	2701	2568	2527	33.61 P
3950	12:52 p.m.	39_5	32 24.4	117 16.0	20	13.33	2690	2557	2516	33.48 P
3951	12:56 p.m.	39_5	32 24.4	117 16.0	17	13.40	2690	2557	2515	33.48 P
3952	12:58 p.m.	39_5	32 24.4	117 16.0	0	13.6	2688	2555	2509	33.46
3953	12:59 p.m.	39_5	32 24.4	117 16.0	15	13.33	.....	.....	.....	.....
3954	1:01 p.m.	39_5	32 24.4	117 16.0	12	13.33	2689	2556	2515	33.47 P
3955	1:03 p.m.	39_5	32 24.4	117 16.0	10	13.33	2689	2556	2515	33.47 P
3956	1:06 p.m.	39_5	32 24.4	117 16.0	7	13.48	2687	2554	2510	33.44 P
3957	1:08 p.m.	39_5	32 24.4	117 16.0	5	13.53	2685	2552	2508	33.41 P
			February 17, 1913							
3958	6:08 a.m.	39_7	32 37.0	117 14.5	30	11.73	2693	2560	2550	33.51 P
3959	6:15 a.m.	39_7	32 37.0	117 14.5	25	11.83	2694	2561	2549	33.52 P

Table 1.—Ocean Data—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°0	Specific gravity: 17°5 S/17°5	Specific gravity: t° S/4°0	Salinity S ‰
			February 17, 1913							
3960	6:19 a.m.	39_7	32 37.0	117 14.5	20	11.88	2694	2561	2548	33.52 P
3961	6:23 a.m.	39_7	32 37.0	117 14.5	17	12.03	2689	2556	2540	33.47 P
3962	6:27 a.m.	39_7	32 37.0	117 14.5	15	12.03	2687	2554	2538	33.44 P
3963	6:30 a.m.	39_7	32 37.0	117 14.5	12	12.48	2688	2555	2530	33.46 P
3964	6:32 a.m.	39_7	32 37.0	117 14.5	10	12.83	2690	2557	2525	33.48 P
3965	6:34 a.m.	39_7	32 37.0	117 14.5	7	13.33	.....	.....	.....	.....
3966	6:36 a.m.	39_7	32 37.0	117 14.5	0	13.4	2689	2556	2514	33.47 P
3967	6:37 a.m.	39_7	32 37.0	117 14.5	5	13.38	.....	.....	.....	.....
3968	6:55 a.m.	39_7	32 36.4	117 16.1	61	11.22	2697	2564	2564	33.57 P
3969	7:00 a.m.	39_7	32 36.4	117 16.1	50	11.62	2691	2558	2551	33.49 P
3970	7:04 a.m.	39_7	32 36.4	117 16.1	40	12.03	2685	2552	2536	33.41 P
3971	7:08 a.m.	39_7	32 36.4	117 16.1	30	12.44	2687	2554	2530	33.44 P
3972	7:12 a.m.	39_7	32 36.4	117 16.1	25	12.63	2686	2553	2525	33.42 P
3973	7:15 a.m.	39_7	32 36.4	117 16.1	20	12.83	2686	2553	2521	33.42 P
3974	7:16 a.m.	39_7	32 36.4	117 16.1	0	13.7	2691	2558	2510	33.49 P
3975	7:17 a.m.	39_7	32 36.4	117 16.1	17	13.03	2686	2553	2518	33.42 P
3976	7:20 a.m.	39_7	32 36.4	117 16.1	15	13.11	2687	2554	2518	33.44 P
3977	7:22 a.m.	39_7	32 36.4	117 16.1	12	13.23	2686	2553	2514	33.42 P
3978	7:25 a.m.	39_7	32 36.4	117 16.1	10	13.43	2688	2555	2512	33.46 P
3979	7:27 a.m.	39_7	32 36.4	117 16.1	7	13.68	2686	2553	2505	33.42 P
3980	7:30 a.m.	39_7	32 36.4	117 16.1	5	13.71	2685	2552	2504	33.41 P
3981	7:55 a.m.	39_7	32 34.0	117 17.4	0	13.8	2689	2556	2506	33.47
3982	7:58 a.m.	39_7	32 34.0	117 17.4	91	10.82	2702	2569	2576	33.62 P
3983	8:03 a.m.	39_7	32 34.0	117 17.4	75	.....	2693	2560	.....	33.51 P
3984	8:08 a.m.	39_7	32 34.0	117 17.4	60	11.53	2688	2555	2549	33.46 P
3985	8:12 a.m.	39_7	32 34.0	117 17.4	50	11.92	2686	2553	2540	33.42 P
3986	8:16 a.m.	39_7	32 34.0	117 17.4	40	12.41	2687	2554	2531	33.44 P
3987	8:19 a.m.	39_7	32 34.0	117 17.4	30	12.57	2686	2553	2527	33.42 P
3988	8:22 a.m.	39_7	32 34.0	117 17.4	25	12.73	2685	2552	2522	33.41 P
3989	8:27 a.m.	39_7	32 34.0	117 17.4	20	13.01	2684	2551	2517	33.40 P
3990	8:30 a.m.	39_7	32 34.0	117 17.4	15	13.73	.....	.....	.....	.....
3991	8:32 a.m.	39_7	32 34.0	117 17.4	10	13.78	.....	.....	.....	.....
3992	8:34 a.m.	39_7	32 34.0	117 17.4	5	13.83	2692	2559	2508	33.50 P
3993	8:35 a.m.	39_7	32 34.0	117 17.4	0	13.9	2693	2560	2508	33.51 P
3994	8:58 a.m.	40_7	32 33.0	117 19.0	0	14.0	2684	2551	2497	33.40 P
3995	9:01 a.m.	40_7	32 33.0	117 19.0	166	9.40	2738	2602	2635	34.07 P
3996	9:10 a.m.	40_7	32 33.0	117 19.0	125	9.92	2729	2594	2618	33.96 P
3997	9:16 a.m.	40_7	32 33.0	117 19.0	75	.....	2696	2562	.....	33.55 P
3998	9:20 a.m.	40_7	32 33.0	117 19.0	50	12.02	2687	2554	2539	33.44
3999	9:24 a.m.	40_7	32 33.0	117 19.0	30	12.77	2685	2552	2522	33.41
4000	9:27 a.m.	40_7	32 33.0	117 19.0	20	13.38	2685	2552	2510	33.41
4001	9:29 a.m.	40_7	32 33.0	117 19.0	15	13.73	2688	2555	2506	33.46
4002	9:30 a.m.	40_7	32 33.0	117 19.0	0	14.1	2687	2554	2498	33.44
4003	9:45 a.m.	40_7	32 34.6	117 19.0	0	14.1	2687	2554	2498	33.44
4004	10:00 a.m.	40_7	32 36.2	117 19.0	0	14.15	2685	2552	2495	33.41
4005	10:15 a.m.	40_8	32 37.8	117 19.0	0	14.1	2690	2557	2501	33.48
4006	10:30 a.m.	40_8	32 39.4	117 19.0	0	14.1	2692	2559	2503	33.50
4007	10:45 a.m.	40_8	32 41.0	117 19.0	0	14.0	2685	2552	2498	33.41
4008	11:00 a.m.	40_9	32 42.6	117 19.0	0	14.3	2689	2556	2496	33.47 P
4009	11:15 a.m.	40_9	32 44.2	117 19.0	0	14.1	2687	2554	2498	33.44
4010	11:30 a.m.	40_9	32 45.8	117 19.0	0	13.9	2690	2557	2505	33.48
4011	11:59 a.m.	$(40)_{10}$	32 51.0	117 18.5	0	13.6	2691	2558	2512	33.49 P
4012	12:15 p.m.	(39_{10})	32 51.3	117 16.5	0	14.2	2689	2556	2498	33.47 P
4013	1:20 p.m.	(39_{10})	32 51.3	117 16.5	0	14.5	2691	2558	2593	33.49 P
4014	1:45 p.m.	$(40)_{10}$	32 50.0	117 18.0	0	14.0	2691	2558	2504	33.49 P
4015	2:00 p.m.	$(40)_{10}$	32 48.0	117 17.8	0	14.0	2689	2556	2502	33.47 P
4016	2:15 p.m.	40_9	32 46.1	117 17.6	0	13.8	2692	2559	2509	33.50 P
4017	2:30 p.m.	40_9	32 44.1	117 17.7	0	13.9	2695	2562	2510	33.54 P
4018	2:45 p.m.	(39_8)	32 42.1	117 17.3	0	14.0	2691	2558	2504	33.49 P
4019	3:00 p.m.	(39_8)	32 40.1	117 17.0	0	14.0	2688	2555	2501	33.46 P
4020	3:10 p.m.	(39_8)	32 38.8	117 16.7	0	14.0	2689	2556	2502	33.47 P

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°.0	Specific gravity: 17°.5 S/17°.5	Specific gravity: t° S/4°.0	Salinity S ‰
			April 15, 1913							
4021	1:10 p.m.	$(39_{7.5})$	32 37.5	117 14.5	0	13.3	.....	.....	.....	.....
4022	1:35 p.m.	(39_{8})	32 40.0	117 16.2	0	14.7	2712	2578	2510	33.75
4023	1:45 p.m.	(39_{8})	32 41.0	117 16.6	0	14.75	2702	2569	2499	33.63
4024	2:00 p.m.	$(39_{8.5})$	32 42.5	117 17.1	0	14.75	2712	2578	2509	33.75
4025	2:15 p.m.	40_{9}	32 44.1	117 17.6	0	14.7	2701	2568	2499	33.61
4026	2:30 p.m.	40_{9}	32 45.7	117 17.8	0	14.65	2700	2567	2499	33.60
4027	2:45 p.m.	40_{9}	32 47.4	117 18.0	0	14.6	2703	2570	2503	33.64
4028	3:00 p.m.	$(40)_{10}$	32 49.1	117 18.2	0	14.9	2702	2569	2496	33.63
4029	3:15 p.m.	$(40)_{10}$	32 50.8	117 18.4	0	14.9	2712	2578	2506	33.75
4030	3:25 p.m.	(39_{10})	32 51.5	117 16.5	0	15.45	2711	2577	2493	33.74
			April 16, 1913							
4031	6:05 a.m.	40_{4}	32 22.4	117 21.2	0	13.8	2695	2562	2512	33.54
4032	6:25 a.m.	40_{4}	32 22.4	117 21.2	0	13.75	.....	.....	.....	.....
4033	7:33 a.m.	40_{4}	32 22.4	117 21.2	0	13.7	2699	2566	2518	33.58
4034	8:00 a.m.	40_{4}	32 22.4	117 21.2	0	13.8	2701	2568	2518	33.61
4035	8:19 a.m.	40_{4}	32 22.4	117 21.2	500	6.39	.....	.....	.....	.....
4036	8:29 a.m.	40_{4}	32 22.4	117 21.2	500	6.36	2757	2621	2698	34.31
4037	8:57 a.m.	40_{4}	32 22.4	117 21.2	0	14.1	2698	2565	2509	33.58
4038	9:04 a.m.	40_{4}	32 22.4	117 21.2	400	7.08	.....	.....	.....	.....
4039	9:13 a.m.	40_{4}	32 22.4	117 21.2	400	7.08	2758	2622	2690	34.33
4040	9:50 a.m.	40_{4}	32 22.4	117 21.2	0	14.2	2702	2569	2511	33.63
4041	9:57 a.m.	40_{4}	32 22.4	117 21.2	300	8.39	2757	2621	2669	34.31
4042	10:17 a.m.	40_{4}	32 22.4	117 21.2	150	9.22	2752	2616	2652	34.25
4043	10:25 a.m.	40_{4}	32 22.4	117 21.2	200	.....	2756	2620	.....	34.30
4044	10:40 a.m.	40_{4}	32 22.4	117 21.2	140	8.88	2742	2607	2647	34.13
4045	10:42 a.m.	40_{4}	32 22.4	117 21.2	0	14.4	2712	2578	2516	33.75
4046	10:59 a.m.	40_{4}	32 22.4	117 21.2	125	9.00	2735	2600	2639	34.04
4047	11:25 a.m.	40_{4}	32 22.4	117 21.2	100	9.41	2733	2598	2630	34.01
4048	11:26 a.m.	40_{4}	32 22.4	117 21.2	0	14.5	2713	2579	2515	33.76
4049	11:41 a.m.	40_{4}	32 22.4	117 21.2	75	9.60	.....	.....	.....	.....
4050	11:47 a.m.	40_{4}	32 22.4	117 21.2	75	9.60	.....	.....	.....	.....
4051	11:59 a.m.	40_{4}	32 22.4	117 21.2	60	9.87	2710	2576	2601	33.73
4052	12:01 p.m.	40_{4}	32 22.4	117 21.2	0	14.6	2695	2562	2495	33.54
4053	12:05 p.m.	40_{4}	32 22.4	117 21.2	60	9.81	2714	2580	2606	33.78
4054	12:45 p.m.	40_{4}	32 22.4	117 21.2	50	10.10	2709	2575	2595	33.71
4055	12:47 p.m.	40_{4}	32 22.4	117 21.2	0	14.6	2711	2577	2511	33.74
4056	12:52 p.m.	40_{4}	From 12:47 p.m. to		50	10.02	2713	2579	2601	33.76
4057	1:03 p.m.	40_{4}	1:45 p.m. the boat		40	10.15	.....	.....	.....	.....
4058	1:05 p.m.	40_{4}	drifted from the		30	10.53	.....	.....	.....	.....
4059	1:05 p.m.	40_{4}	above position		30	10.78	2702	2569	2576	33.63
4060	1:09 p.m.	40_{4}	to the following		25	11.41	2701	2568	2565	33.61
4061	1:09 p.m.	40_{4}	position		25	11.21	2702	2569	2569	33.62
4062	1:13 p.m.	40_{4}			20	12.12	2699	2566	2549	33.59
4063	1:13 p.m.	40_{4}			20	12.22	2698	2565	2546	33.58
4064	1:19 p.m.	40_{5}			13	13.23	2698	2565	2526	33.58
4065	1:19 p.m.	40_{5}			13	13.23	2699	2566	2527	33.59
4066	1:24 p.m.	40_{5}			15	13.03	2697	2564	2529	33.57
4067	1:24 p.m.	40_{5}			15	12.93	2700	2567	2533	33.60
4068	1:28 p.m.	40_{5}			12	13.54	2699	2566	2521	33.59
4069	1:28 p.m.	40_{5}			12	13.54	2699	2566	2521	33.59
4070	1:32 p.m.	40_{5}			10	13.59	2699	2566	2520	33.59
4071	1:32 p.m.	40_{5}			10	13.59	2698	2565	2519	33.58
4072	1:35 p.m.	40_{5}			7	13.74	2699	2566	2517	33.59
4073	1:35 p.m.	40_{5}			7	13.74	2700	2567	2518	33.60
4074	1:38 p.m.	40_{5}			5	14.04	2700	2567	2512	33.60
4075	1:38 p.m.	40_{5}			5	13.17	2698	2565	2508	33.58
4076	1:45 p.m.	40_{5}	32° 22'.6	117° 20'.0	0	14.4	2698	2565	2502	33.58
			April 17, 1913							
4077	5:54 a.m.	40_{4}	32 22.4	117 21.2	5	14.50	.....	.....	.....	.....
4078	5:57 a.m.	40_{4}			0	14.2	2701	2568	2510	33.61
4079	6:05 a.m.	40_{4}			5	14.17	2699	2566	2509	33.59

Table 1.—Ocean Data—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: $\frac{0°}{4°0}$ S	Specific gravity: $\frac{17°5}{17°5}$ S	Specific gravity: $\frac{t°}{4°0}$ S	Salinity S ‰
			April 17, 1913							
4080	6:05 a.m.	40_4	From 5:48 a.m. to		5	14.25	2698	2565	2506	33.58
4081	6:10 a.m.	40_4	8:50 a.m. the boat		7	14.12	2695	2562	2506	33.54
4082	6:16 a.m.	40_4	drifted from the		7	14.15	2696	2563	2506	33.55
4083	6:22 a.m.	40_4	above position		10	13.34	2696	2563	2522	33.55
4084	6:28 a.m.	40_4	to the following		10	13.75	2697	2564	2515	33.57
4085	6:33 a.m.	40_4	position		12	13.43	2694	2561	2518	33.63
4086	6:37 a.m.	40_4			0	14.2	2699	2566	2508	33.59
4087	6:40 a.m.	40_4			12	13.54	2695	2562	2517	33.54
4088	6:52 a.m.	40_4			15	12.12	.....	.....	.....	.....
4089	7:15 a.m.	40_4			15	.....	2698	2565	.....	33.58
4090	7:15 a.m.	40_4			15	12.71	2696	2563	2534	33.55
4091	7:23 a.m.	40_4			0	14.3	2698	2565	2505	33.58
4092	7:25 a.m.	$40_{4.5}$			17	12.28	2698	2565	2544	33.58
4093	7:46 a.m.	40_5			20	11.93	2699	2566	2532	33.59
4094	7:57 a.m.	40_5			0	14.4	2698	2565	2502	33.58
4095	8:17 a.m.	40_5			25	.....	2699	2566	.....	33.59
4096	8:23 a.m.	40_5			25	11.22	2699	2566	2566	33.59
4097	8:28 a.m.	40_5			30	10.92	2698	2565	2571	33.58
4098	8:34 a.m.	40_5			30	11.00	2700	2567	2571	33.60
4099	8:38 a.m.	40_5	32° 22′.6	117° 22′.1	0	14.5	2701	2568	2503	33.61
4100	9:15 a.m.	40_4	32 22.4	117 21.2	40	10.26	.....	.....	.....	.....
4101	9:20 a.m.	40_4	32 22.4	117 21.2	50	9.91	2708	2574	2598	33.71
4102	9:26 a.m.	40_4	32 22.4	117 21.2	60	9.70	2716	2582	2609	33.80
4103	9:35 a.m.	40_4	32 22.4	117 21.2	100	9.21	2725	2590	2626	33.91
4104	9:40 a.m.	40_4	32 22.4	117 21.2	125	9.05	2739	2604	2642	34.09
4105	10:00 a.m.	40_4	32 22.4	117 21.2	150	9.01	2745	2610	2649	34.16
4106	10:25 a.m.	40_4	32 22.4	117 21.2	0	14.9	2697	2564	2491	33.57
4107	10:27 a.m.	40_4	32 22.4	117 21.2	300	8.52	2760	2624	2670	34.35
4108	10:43 a.m.	40_4	32 22.4	117 21.2	400	7.35	2759	2623	2687	34.34
4109	11:15 a.m.	40_4	32 22.4	117 21.2	500	6.58	2763	2627	2701	34.39
4110	11:16 a.m.	40_4	32 22.4	117 21.2	0	14.8	2695	2562	2491	33.54
4111	12:02 p.m.	40_5	32 23.5	117 18.0	0	15.1	2707	2574	2497	33.69
4112	12:05 p.m.	40_5	32 23.5	117 18.0	150	.....	2748	2612	.....	34.20
4113	12:43 p.m.	40_5	32 23.5	117 18.0	125	9.10	2737	2602	2639	34.06
4114	12:48 p.m.	40_5	32 23.5	117 18.0	100	9.57	2729	2594	2624	33.96
4115	12:50 p.m.	40_5	32 23.5	117 18.0	0	15.0	2700	2567	2492	33.60
4116	12:53 p.m.	40_5	32 23.5	117 18.0	75	9.84	2724	2589	2614	33.90
4117	1:02 p.m.	40_5	32 23.5	117 18.0	60	9.97	2713	2579	2601	33.76
4118	1:08 p.m.	40_5	32 23.5	117 18.0	50	10.20	2712	2578	2578	33.75
4119	1:12 p.m.	40_5	32 23.5	117 18.0	40	10.15	2706	2573	2596	33.68
4120	1:16 p.m.	40_5	32 23.5	117 18.0	30	10.61	.....	.....	.....	.....
4121	1:20 p.m.	40_5	32 23.5	117 18.0	25	11.12	2696	2563	2565	33.55
4122	1:30 p.m.	40_5	32 23.5	117 18.0	20	11.78	2697	2564	2553	33.57
4123	1:34 p.m.	40_5	32 23.5	117 18.0	17	12.90	2696	2563	2530	33.56
4124	1:38 p.m.	40_5	32 23.5	117 18.0	15	13.11	2695	2562	2526	33.54
4125	1:41 p.m.	40_5	32 23.5	117 18.0	12	13.50	2696	2563	2519	33.55
4126	1:45 p.m.	40_5	32 23.5	117 18.0	10	14.13	2697	2564	2507	33.57
4127	1:48 p.m.	40_5	32 23.5	117 18.0	7	14.35	2699	2566	2505	33.59
4128	1:50 p.m.	40_5	32 23.5	117 18.0	5	14.51	2698	2565	2500	33.58
4129	1:52 p.m.	40_5	32 23.5	117 18.0	0	14.7	2707	2674	2505	33.69
			April 18, 1913							
4130	6:18 a.m.	39_7	32 37.4	117 14.4	5	12.74	2710	2576	2547	33.73
4131	6:21 a.m.	39_7	32 37.4	117 14.4	0	12.75	2710	2576	2547	33.73
4132	6:56 a.m.	39_7	32 36.2	117 17.0	62	9.71	2724	2589	2616	33.90
4133	7:04 a.m.	39_7	32 36.2	117 17.0	50	10.04	2714	2580	2601	33.78
4134	7:05 a.m.	39_7	32 36.2	117 17.0	0	12.9	2709	2575	2543	33.71
4135	7:11 a.m.	39_7	32 36.2	117 17.0	40	10.14	2714	2580	2600	33.78
4136	7:16 a.m.	39_7	32 36.2	117 17.0	30	10.22	2713	2579	2598	33.76
4137	7:21 a.m.	39_7	32 36.2	117 17.0	25	10.50	2710	2576	2600	33.73
4138	7:26 a.m.	39_7	32 36.2	117 17.0	20	10.78	2709	2575	2583	33.71

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°0	Specific gravity: 17°5 S/17°5	Specific gravity: t° S/4°0	Salinity S ‰
			April 18, 1913							
4139	7:31 a.m.	39_7	32 36.2	117 17.0	17	11.23	2707	2573	2573	33.69
4140	7:35 a.m.	39_7	32 36.2	117 17.0	15	11.43	2707	2573	2570	33.69
4141	7:40 a.m.	39_7	32 36.2	117 17.0	12	11.94	2706	2572	2559	33.68
4142	7:44 a.m.	39_7	32 36.2	117 17.0	10	11.89	2708	2574	2562	33.70
4143	7:47 a.m.	39_7	32 36.2	117 17.0	7	12.74	2706	2572	2543	33.68
4144	7:51 a.m.	39_7	32 36.2	117 17.0	5	12.95	2707	2573	2540	33.69
4145	7:54 a.m.	39_7	32 36.2	117 17.0	0	13.0	2705	2572	2538	33.67
4146	8:20 a.m.	40_7	32 34.9	117 18.0	75	9.52	2728	2593	2624	33.95
4147	8:21 a.m.	40_7	32 34.9	117 18.0	0	13.25	2708	2574	2536	33.70
4148	8:22 a.m.	40_7	32 34.9	117 18.0	60	9.94	2718	2583	2607	33.83
4149	8:32 a.m.	40_7	32 34.9	117 18.0	50	10.10	2717	2583	2603	33.83
4150	8:38 a.m.	40_7	32 34.9	117 18.0	40	10.41	2712	2578	2593	33.75
4151	8:43 a.m.	40_7	32 34.9	117 18.0	30	10.54	2710	2576	2589	33.73
4152	8:48 a.m.	40_7	32 34.9	117 18.0	25	11.53	2711	2577	2572	33.74
4153	8:54 a.m.	40_7	32 34.9	117 18.0	20	12.13	2708	2574	2557	33.70
4154	8:59 a.m.	40_7	32 34.9	117 18.0	17	12.63	2708	2574	2547	33.70
4155	9:03 a.m.	40_7	32 34.9	117 18.0	15	13.06	2707	2573	2539	33.69
4156	9:08 a.m.	40_7	32 34.9	117 18.0	12	13.17	2706	2572	2536	33.68
4157	9:12 a.m.	40_7	32 34.9	117 18.0	10	13.16	2707	2573	2537	33.69
4158	9:16 a.m.	40_7	32 34.9	117 18.0	7	13.13	2706	2572	2536	33.68
4159	9:20 a.m.	40_7	32 34.9	117 18.0	5	13.13	2707	2573	2537	33.69
4160	9:24 a.m.	40_7	32 34.9	117 18.0	15	13.09	2707	2573	2538	33.69
4161	9:25 a.m.	40_7	32 34.9	117 18.0	0	.....	2710	2576	.....	33.73
4162	9:56 a.m.	40_7	32 36.0	117 21.5	119	9.14	.....	.....	.....	.....
4163	10:12 a.m.	40_7	32 36.0	117 21.5	0	14.5	2707	2573	2509	33.69
4164	10:14 a.m.	40_7	32 36.0	117 21.5	100	9.36	2734	2598	2632	34.02
4165	10:21 a.m.	40_7	32 36.0	117 21.5	75	9.85	2721	2587	2611	33.87
4166	10:27 a.m.	40_7	32 36.0	117 21.5	60	10.22	2721	2587	2605	33.87
4167	10:33 a.m.	40_7	32 36.0	117 21.5	50	10.42	2707	2573	2588	33.69
4168	10:37 a.m.	40_7	32 36.0	117 21.5	40	10.47	2707	2573	2587	33.69
4169	10:43 a.m.	40_7	32 36.0	117 21.5	30	.....	2702	2568	.....	33.62
4170	10:50 a.m.	40_7	32 36.0	117 21.5	25	11.23	2699	2565	2565	33.58
4171	10:54 a.m.	40_7	32 36.0	117 21.5	20	11.42	2694	2561	2558	33.53
4172	10:58 a.m.	40_7	32 36.0	117 21.5	17	12.23	2692	2559	2539	33.50
4173	11:03 a.m.	40_7	32 36.0	117 21.5	15	12.88	2693	2560	2537	33.51
4174	11:07 a.m.	40_7	32 36.0	117 21.5	12	13.53	2694	2561	2516	33.53
4175	11:10 a.m.	40_7	32 36.0	117 21.5	10	13.61	2695	2562	2516	33.54
4176	11:13 a.m.	40_7	32 36.0	117 21.5	7	13.71	2696	2562	2515	33.55
4177	11:16 a.m.	40_7	32 36.0	117 21.5	5	14.09	2697	2564	2508	33.57
4178	11:20 a.m.	40_7	32 36.0	117 21.5	0	14.6	2693	2560	2493	33.51
4179	11:43 a.m.	41_7	32 35.5	117 23.0	0	.....	2697	2564	.....	33.57
			August 5, 1913							
4180	6:22 p.m.	(39_8)	32 38.1	117 15.4	0	19.0	2702	2568	2399	33.62
4181	6:40 p.m.	(39_8)	32 39.7	117 16.9	0	19.0	2703	2569	2400	33.64
4182	7:00 p.m.	40_8	32 41.4	117 18.5	0	20.4	2707	2573	2367	33.69
4183	7:20 p.m.	40_8	32 43.1	117 20.0	0	20.6	2697	2564	2352	33.57
4184	7:40 p.m.	40_9	32 44.8	117 21.6	0	20.6	2696	2562	2351	33.55
4185	8:00 p.m.	41_9	32 46.5	117 23.2	0	20.5	2704	2571	2361	33.66
4186	8:20 p.m.	41_{10}	32 48.2	117 24.9	0	20.85	2702	2568	2350	33.62
4187	8:40 p.m.	41_{10}	32 49.9	117 26.4	0	21.05	2704	2571	2347	33.66
4188	9:00 p.m.	42_{10}	32 51.6	117 28.0	0	21.0	2705	2572	2349	33.67
4189	9:20 p.m.	42_{11}	32 53.4	117 29.6	0	20.7	2704	2571	2356	33.66
4190	9:40 p.m.	42_{11}	32 55.0	117 31.2	0	20.3	2705	2572	2368	33.67
4191	10:00 p.m.	43_{11}	32 56.8	117 32.7	0	20.35	2704	2571	2366	33.66
4192	10:20 p.m.	43_{12}	32 58.5	117 33.3	0	20.1	2708	2574	2376	33.70
4193	10:40 p.m.	43_{12}	33 0.1	117 35.9	0	19.5	2701	2567	2385	33.61
4194	11:00 p.m.	43.5_{12}	33 1.9	117 37.5	0	19.25	2703	2569	2393	33.64
4195	11:20 p.m.	44_{12}	33 3.6	117 39.1	0	19.6	2702	2568	2383	33.62
4196	11:40 p.m.	44_{13}	33 5.3	117 40.7	0	19.1	2703	2569	2398	33.64
4197	11:59 p.m.	44_{13}	33 7.0	117 42.3	0	19.05	2704	2571	2400	33.66

Table 1.—Ocean Data—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°0	Specific gravity: 17°5 S/17°5	Specific gravity: t° S/4°0	Salinity S ‰
			August 6, 1913							
4198	12:20 a.m.	45_{14}	33 8.7	117 43.8	0	20.35	2702	2568	2364	33.62
4199	12:40 a.m.	45_{14}	33 10.4	117 45.5	0	20.45	2706	2572	2364	33.68
4200	1:00 a.m.	45_{14}	33 12.1	117 47.0	0	20.3	2702	2568	2365	33.62
4201	1:20 a.m.	46_{15}	33 13.8	117 48.6	0	20.35	2710	2576	2372	33.73
4202	1:40 a.m.	46_{15}	33 15.5	117 50.2	0	20.25	2708	2574	2372	33.70
4203	2:00 a.m.	46_{15}	33 17.2	117 51.8	0	19.45	2701	2567	2387	33.61
4204	2:20 a.m.	47_{16}	33 18.9	117 53.4	0	19.75	2699	2565	2377	33.58
4205	2:40 a.m.	47_{16}	33 20.6	117 55.0	0	18.65	2694	2561	2400	33.53
4206	3:05 a.m.	47_{17}	33 22.7	117 57.0	0	18.5	2700	2566	2410	33.60
4207	3:20 a.m.	48_{17}	33 24.0	117 58.2	0	18.25	2696	2562	2412	33.55
4208	3:40 a.m.	48_{17}	33 25.7	117 59.7	0	17.8	2700	2566	2427	33.60
4209	4:00 a.m.	48_{17}	33 27.4	118 1.3	0	17.8	2697	2564	2424	33.57
4210	4:20 a.m.	49_{18}	33 29.1	118 2.9	0	17.8	2694	2561	2421	33.53
4211	4:40 a.m.	49_{18}	33 30.8	118 4.5	0	17.8	2699	2565	2426	33.58
4212	5:00 a.m.	$49_{18.5}$	33 32.5	118 6.1	0	17.65	2697	2564	2428	33.57
4213	5:20 a.m.	50_{19}	33 34.1	118 7.7	0	17.15	2697	2564	2440	33.57
4214	5:40 a.m.	50_{19}	33 35.8	118 9.1	0	16.55	2692	2559	2448	33.50
4215	6:00 a.m.	50_{19}	33 37.1	118 10.0	0	17.4	2698	2565	2434	33.58
4216	6:20 a.m.	50_{20}	33 38.9	118 11.2	0	16.95	2698	2565	2445	33.58
4217	6:40 a.m.	50_{20}	33 40.6	118 12.4	0	14.7	2695	2562	2493	33.54
4218	7:00 a.m.	51_{20}	33 42.4	118 13.6	0	16.2	2690	2557	2454	33.48
4219	7:20 a.m.	(51_{21})	33 44.2	118 14.8	0	17.4	2693	2560	2429	33.51
4220	7:30 a.m.	(51_{21})	33 43.7	118 15.3	0	16.8	2693	2560	2443	33.51
4221	7:40 a.m.	(51_{21})	33 43.3	118 15.6	0	16.5	2690	2557	2447	33.48
4222	7:45 a.m.	51_{20}	33 42.2	118 15.4	0	15.3	2694	2561	2479	33.53
4223	8:05 a.m.	51_{20}	33 41.7	118 17.4	0	16.2	2694	2561	2458	33.53
4224	8:21 a.m.	$(52_{20.5})$	33 42.5	118 19.7	0	15.8	2693	2560	2467	33.51
4225	8:35 a.m.	(52_{21})	33 43.3	118 22.4	0	15.6	2696	2562	2475	33.55
4226	9:05 a.m.	(53_{21})	33 44.0	118 25.0	0	14.5	2692	2559	2494	33.50
4227	9:18 a.m.	(53_{21})	33 45.2	118 26.0	0	15.0	2697	2564	2489	33.57
4228	9:30 a.m.	(53_{21})	33 46.5	118 26.7	0	18.2	2703	2569	2420	33.64
4229	9:43 a.m.	(53_{22})	33 47.8	118 25.0	0	19.0	2701	2567	2398	33.61
4230	9:56 a.m.	(53_{22})	33 49.6	118 23.8	0	20.0	2701	2567	2372	33.61
4231	10:05 a.m.	(53_{22})	33 49.8	118 24.0	0	19.9	2701	2567	2375	33.61
4232	10:40 a.m.	$(53_{22.5})$	33 52.5	118 25.0	0	20.1	2702	2568	2370	33.62
4233	11:00 a.m.	(53_{23})	33 56.0	118 27.0	0	19.8	2704	2571	2380	33.66
4234	11:24 a.m.	(54_{24})	33 59.0	118 28.8	0	19.9	2697	2564	2371	33.57
4235	11:36 a.m.	(54_{24})	34 0.4	118 30.0	0	19.7	2698	2565	2377	33.58
4236	11:55 a.m.	(54.5_{24})	34 1.1	118 32.5	0	19.4	2701	2567	2388	33.61
4237	12:25 p.m.	$55_{(24)}$	34 1.0	118 36.4	0	20.5	2702	2568	2359	33.62
4238	12:40 p.m.	$56_{(24)}$	34 0.9	118 38.5	0	19.8	2702	2568	2378	33.62
4239	1:00 p.m.	$56_{(24)}$	34 0.9	118 41.1	0	19.6	2701	2567	2382	33.61
4240	1:20 p.m.	(57_{24})	34 0.8	118 43.8	0	19.5	2711	2577	2395	33.74
4241	1:40 p.m.	(57_{24})	34 0.8	118 46.4	0	19.1	2707	2573	2402	33.69
			August 7, 1913							
4242	4:52 a.m.	(57_{24})	34 0.8	118 46.4	0	18.2	2701	2567	2418	33.61
4243	5:05 a.m.	(58_{24})	33 59.4	118 48.4	0	18.4	2703	2569	2415	33.64
4244	5:20 a.m.	(58_{24})	34 0.4	118 49.1	0	16.2	2702	2568	2466	33.62
4245	5:25 a.m.	(58_{24})	34 0.8	118 50.0	0	16.0	.....	.....	.....	.....
4246	5:30 a.m.	(58_{24})	34 1.3	118 51.0	0	16.6	2694	2561	2449	33.53
4247	5:35 a.m.	(58_{24})	34 1.6	118 52.0	0	16.95	.....	.....	.....	.....
4248	5:42 a.m.	$59_{(24)}$	34 1.8	118 53.2	0	15.8	2695	2562	2469	33.54
4249	5:45 a.m.	$59_{(24)}$	34 2.0	118 53.7	0	15.6	.....	.....	.....	.....
4250	5:50 a.m.	$59_{(24)}$	34 2.0	118 54.2	0	15.7	2692	2559	2469	33.50
4251	5:55 a.m.	$59_{(24)}$	34 2.1	118 55.7	0	15.4	.....	.....	.....	.....
4252	6:02 a.m.	$59_{(24)}$	34 2.1	118 56.2	0	14.8	2693	2560	2484	33.52
4253	6:10 a.m.	$59_{(24)}$	34 2.3	118 56.5	0	15.0	2692	2559	2484	33.50
4254	6:22 a.m.	$(59.5_{24.5})$	34 2.5	118 57.5	0	15.2	2693	2560	2481	33.51
4255	6:28 a.m.	(60_{25})	34 2.8	118 57.8	0	15.5	2696	2562	2477	33.55
4256	6:35 a.m.	(60_{25})	34 3.6	118 59.9	0	15.95	2696	2562	2467	33.55
4257	6:45 a.m.	(60_{25})	34 4.1	119 1.5	0	15.9	.....	.....	.....	.....

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude		Position: West longitude		Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°0	Specific gravity: 17°5 S/17°5	Specific gravity: t° S/4°0	Salinity S ‰
			August 7, 1913									
4258	6:50 a.m.	(60_{25})	34	4.5	119	2.4	0	15.15	2692	2559	2481	33.50
4259	6:52 a.m.	$60_{(25)}$	34	4.6	119	3.0	0	14.3	2697	2564	2504	33.57
4260	6:57 a.m.	$61_{(25)}$	34	4.8	119	3.8	0	14.5	2698	2565	2500	33.58
4261	7:01 a.m.	$61_{(25)}$	34	4.9	119	4.3	0	14.4	2699	2565	2503	33.58
4262	7:05 a.m.	$61_{(25)}$	34	5.1	119	4.9	0	14.2	2702	2568	2511	33.62
4263	7:10 a.m.	$61_{(25)}$	34	5.2	119	5.6	0	14.0	2702	2568	2515	33.62
4264	7:12 a.m.	$61_{(25)}$	34	5.2	119	5.8	0	14.0	.....	.....	.....	.....
4265	7:15 a.m.	$61_{(25)}$	34	5.2	119	6.2	0	13.85	2704	2571	2520	33.66
4266	7:18 a.m.	$61_{(25)}$	34	5.3	119	6.6	0	13.8	2700	2566	2517	33.60
4267	7:21 a.m.	$61_{(25)}$	34	5.3	119	7.1	0	14.8	.....	.....	.....	.....
4268	7:26 a.m.	(62_{25})	34	5.4	119	7.7	0	14.9	2698	2565	2492	33.58
4269	7:28 a.m.	(62_{25})	34	5.4	119	8.0	0	14.7	2699	2565	2497	33.59
4270	7:40 a.m.	$61_{(25)}$	34	5.3	119	6.7	10	12.72	2687	2554	2525	33.44
4271	7:45 a.m.	$61_{(25)}$	34	5.3	119	6.7	7	13.02	2688	2555	2521	33.46
4272	7:47 a.m.	$61_{(25)}$	34	5.3	119	6.7	5	13.32	2693	2560	2520	33.51
4273	7:48 a.m.	$61_{(25)}$	34	5.3	119	6.7	0	13.9	2700	2566	2515	33.60
4274	8:06 a.m.	(62_{25})	34	5.2	119	7.6	12	12.43	2690	2557	2533	33.48
4275	8:08 a.m.	(62_{25})	34	5.2	119	7.6	10	12.48	2688	2555	2530	33.46
4276	8:11 a.m.	(62_{25})	34	5.2	119	7.6	7	12.64	2691	2558	2530	33.49
4277	8:12 a.m.	(62_{25})	34	5.2	119	7.6	5	13.04	2692	2559	2524	33.50
4278	8:12 a.m.	(62_{25})	34	5.2	119	7.6	0	13.55	2699	2565	2521	33.58
4279	8:21 a.m.	(62_{25})	34	4.7	118	8.7	0	14.9	2695	2562	2489	33.54
4280	8:29 a.m.	(62_{25})	34	4.1	119	9.8	0	16.3	2698	2565	2460	33.58
4281	8:37 a.m.	(62_{25})	34	3.5	119	11.0	0	16.55	2704	2571	2460	33.66
4282	8:47 a.m.	(62_{25})	34	3.5	119	11.0	150	9.01	2728	2593	2632	33.95
4283	8:55 a.m.	(62_{25})	34	3.5	119	11.0	125	9.21	.....	.....	.....	.....
4284	9:02 a.m.	(62_{25})	34	3.5	119	11.0	100	9.44	.....	.....	.....	.....
4285	9:07 a.m.	(62_{25})	34	3.5	119	11.0	75	10.16	2707	2573	2592	33.69 P
4286	9:12 a.m.	(62_{25})	34	3.5	119	11.0	60	10.46	2700	2566	2580	33.60
4287	9:16 a.m.	(62_{25})	34	3.5	119	11.0	50	11.22	2688	2555	2555	33.46
4288	9:20 a.m.	(62_{25})	34	3.5	119	11.0	40	11.92	2688	2555	2541	33.46
4289	9:25 a.m.	(62_{25})	34	3.5	119	11.0	30	13.38	2692	2559	2517	33.50
4290	9:28 a.m.	(62_{25})	34	3.5	119	11.0	25	13.93	2694	2561	2508	33.53
4291	9:32 a.m.	(62_{25})	34	3.5	119	11.0	20	14.46	2696	2562	2499	33.55
4292	9:38 a.m.	(62_{25})	34	3.5	119	11.0	17	14.64	2697	2564	2496	33.57
4293	9:40 a.m.	(62_{25})	34	3.5	119	11.0	15	15.07	2694	2561	2485	33.53
4294	9:42 a.m.	(62_{25})	34	3.5	119	11.0	12	15.43	2697	2564	2479	33.57
4295	9:44 a.m.	(62_{25})	34	3.5	119	11.0	10	15.58	2697	2564	2476	33.57
4296	9:47 a.m.	(62_{25})	34	3.5	119	11.0	7	16.34	2699	2565	2460	33.58
4297	9:49 a.m.	(62_{25})	34	3.5	119	11.0	5	16.39	2698	2565	2458	33.58
4298	9:50 a.m.	(62_{25})	34	3.5	119	11.0	0	16.6	2700	2566	2455	33.60
4299	9:58 a.m.	(62_{25})	34	3.2	119	12.4	0	16.75	2701	2567	2453	33.61
4300	10:05 a.m.	63_{25}	34	2.8	119	13.0	0	16.9	2702	2568	2450	33.62
4301	10:15 a.m.	63_{25}	From 10:05 to 11:47 a.m. the boat drifted from the above position to the following position				300	8.10	2752	2616	2668	34.25
4302	10:34 a.m.	63_{25}					200	8.67	2741	2605	2650	34.11
4303	10:43 a.m.	63_{25}					150	8.82	2735	2600	2642	34.04
4304	10:48 a.m.	63_{25}					125	9.11	2726	2591	2628	33.93
4305	10:54 a.m.	63_{25}					100	9.41	2720	2586	2617	33.86
4306	11:00 a.m.	63_{25}					75	10.11	2701	2567	2587	33.61
4307	11:05 a.m.	63_{25}					60	10.42	2700	2566	2581	33.60
4308	11:10 a.m.	63_{25}					50	10.62	2694	2561	2572	33.53
4309	11:13 a.m.	63_{25}					40	10.97	2693	2560	2564	33.51
4310	11:16 a.m.	63_{25}					30	11.72	2694	2561	2554	33.53
4311	11:20 a.m.	63_{25}					25	12.10	2694	2561	2544	33.53
4312	11:24 a.m.	(62.5_{25})					20	13.25	2694	2561	2522	33.53
4313	11:27 a.m.	(62_{25})					17	13.63	2694	2561	2514	33.53
4314	11:32 a.m.	62_{24}					15	13.68	2693	2560	2512	33.51
4315	11:36 a.m.	62_{24}					12	14.47	2702	2568	2505	33.62
4316	11:37 a.m.	62_{24}					0	16.9	2704	2571	2452	33.66
4317	11:40 a.m.	62_{24}					10	14.93	.....	.....	.....	.....

Table 1.—Ocean Data—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°.0	Specific gravity: 17°.5 S/17°.5	Specific gravity: t° S/4°.0	Salinity S ‰
			August 7, 1913							
4318	11:42 a.m.	62_{24}			7	15.18	2704	2571	2492	33.66
4319	11:45 a.m.	62_{24}	34° 1'.5	119° 10'.3	5	16.33	2705	2572	2466	33.67
4320	11:55 a.m.	62_{24}	34 1.4	119 11.7	0	17.3	2703	2569	2442	33.64
4321	12:03 p.m.	63_{24}	34 1.4	119 13.2	0	17.1	2707	2573	2451	33.69
4322	12:11 p.m.	63_{24}	34 1.3	119 14.7	0	17.0	2700	2566	2446	33.60
4323	12:19 p.m.	63_{24}	34 1.2	119 16.0	0	17.35	2705	2572	2443	33.67
4324	12:27 p.m.	63_{24}	34 1.1	119 17.4	0	17.45	2700	2566	2435	33.60
4325	12:35 p.m.	64_{24}	34 1.1	119 18.9	0	17.5	2702	2568	2436	33.62
4326	12:43 p.m.	64_{24}	34 1.0	119 20.3	0	17.2	2707	2573	2448	33.69
4327	1:15 p.m.	64_{24}	33 58.4	119 19.5	0	17.55	.....	.....	.....	.....
4328	1:17 p.m.	64_{24}	33 58.4	119 19.5	300	8.05	2755	2619	2687	34.29
4329	1:28 p.m.	64_{24}	33 58.4	119 19.5	200	8.26	2746	2610	2660	34.17
4330	1:38 p.m.	64_{24}	33 58.4	119 19.5	150	8.66	2733	2598	2642	34.01
4331	1:42 p.m.	64_{24}	33 58.4	119 19.5	100	9.50	2721	2587	2617	33.87
4332	1:48 p.m.	64_{24}	33 58.4	119 19.5	75	10.01	2701	2567	2589	33.61
4333	1:54 p.m.	64_{24}	33 58.4	119 19.5	60	10.41	2698	2565	2579	33.58
4334	1:58 p.m.	64_{24}	33 58.4	119 19.5	50	11.09	2695	2562	2564	33.54
4335	2:02 p.m.	64_{24}	33 58.4	119 19.5	40	11.90	2701	2567	2555	33.61
4336	2:06 p.m.	64_{24}	33 58.4	119 19.5	30	12.66	2696	2562	2535	33.55
4337	2:10 p.m.	64_{24}	33 58.4	119 19.5	25	14.23	2700	2566	2508	33.60
4338	2:13 p.m.	64_{24}	33 58.4	119 19.5	20	16.14	2703	2569	2469	33.64
4339	2:16 p.m.	64_{24}	33 58.4	119 19.5	17	16.41	2703	2569	2463	33.64
4340	2:21 p.m.	64_{24}	33 58.4	119 19.5	15	16.44	2706	2572	2464	33.68
4341	2:23 p.m.	64_{24}	33 58.4	119 19.5	12	16.44	2705	2572	2463	33.67
4342	2:26 p.m.	64_{24}	33 58.4	119 19.5	10	16.44	2703	2569	2462	33.64
4343	2:29 p.m.	64_{24}	33 58.4	119 19.5	7	16.49	2703	2569	2460	33.64
4344	2:31 p.m.	64_{24}	33 58.4	119 19.5	5	16.54	2704	2571	2460	33.65
4345	2:32 p.m.	64_{24}	33 58.4	119 19.5	0	17.55	2705	2572	2438	33.67
4346	4:05 p.m.	66_{23}	33 55.5	119 29.0	0	17.4	2709	2575	2445	33.71
4347	4:30 p.m.	66_{23}	33 55.5	119 29.0	0	17.4	2708	2574	2444	33.70
			August 8, 1913							
4348	5:45 a.m.	66_{23}	33 55.7	119 29.9	0	17.1	2705	2572	2449	33.67
4349	5:46 a.m.	66_{23}	From 5:45 to 6:45		300	7.70	2757	2620	2680	34.31
4350	5:50 a.m.	66_{23}	a.m. the boat		150	8.80	2737	2602	2644	34.06
4351	6:02 a.m.	66_{23}	drifted from the		100	9.37	2715	2580	2613	33.78
4352	6:07 a.m.	66_{23}	above position		75	9.98	2699	2565	2587	33.58
4353	6:12 a.m.	66_{23}	to the following		60	10.59	2695	2562	2573	33.54
4354	6:16 a.m.	66_{23}	position		50	11.21	2694	2561	2561	33.53
4355	6:20 a.m.	66_{23}			40	12.41	2694	2561	2538	33.53
4356	6:24 a.m.	66_{23}			30	14.84	2700	2566	2495	33.60
4357	6:27 a.m.	66_{23}			25	15.57	2701	2567	2481	33.61
4358	6:31 a.m.	66_{23}			20	16.19	2704	2571	2468	33.66
4359	6:35 a.m.	66_{23}			17	16.54	2703	2569	2459	33.64
4360	6:38 a.m.	66_{23}			15	16.74	2705	2572	2456	33.67
4361	6:41 a.m.	66_{23}			10	16.96	2705	2572	2452	33.67
4362	6:44 a.m.	66_{23}			5	17.04	2704	2571	2449	33.66
4363	6:45 a.m.	66_{23}	33° 55'.5	119° 29'.0	0	17.2	2704	2571	2445	33.66
4364	7:00 a.m.	66_{23}	33 54.1	119 28.1	0	17.5	2703	2569	2437	33.64
4365	7:15 a.m.	$65_{22.5}$	33 52.5	119 27.1	0	18.3	2704	2571	2419	33.66
4366	7:30 a.m.	65_{22}	33 50.8	119 26.0	0	17.8	2703	2569	2430	33.64
4367	7:45 a.m.	65_{22}	33 49.1	119 24.9	0	18.4	2708	2574	2420	33.70
4368	8:00 a.m.	65_{21}	33 47.4	119 23.9	0	17.1	2703	2569	2447	33.64
4369	8:15 a.m.	65_{21}	33 45.7	119 22.8	0	16.4	2705	2572	2465	33.67
4370	8:30 a.m.	64_{21}	33 44.0	119 21.7	0	16.6	2707	2573	2462	33.69
4371	8:45 a.m.	64_{20}	33 42.3	119 20.6	0	17.2	2708	2574	2449	33.70
4372	9:00 a.m.	64_{20}	33 40.6	119 19.6	0	17.6	2709	2575	2441	33.71
4373	9:15 a.m.	64_{20}	33 38.9	119 18.5	0	17.7	2710	2576	2439	33.73
4374	9:30 a.m.	63_{19}	33 37.3	119 17.4	0	17.75	2706	2572	2434	33.68
4375	9:50 a.m.	63_{19}	33 35.0	119 16.0	100	8.86	.....	.....	.....	.....
4376	9:52 a.m.	63_{19}	33 35.0	119 16.0	0	17.6	2710	2576	2442	33.73
4377	9:58 a.m.	63_{19}	33 35.0	119 16.0	75	9.31	2724	2590	2623	33.90

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°.0	Specific gravity: 17°.5 S/17°.5	Specific gravity: t° S/4°.0	Salinity S ‰
			August 8, 1913							
4378	10:02 a.m.	63_{19}	33 35.0	119 16.0	60	.....	2716	2582	.....	33.80
4379	10:06 a.m.	63_{19}	33 35.0	119 16.0	50	10.92	2715	2580	2588	33.78
4380	10:10 a.m.	63_{19}	33 35.0	119 16.0	40	11.67	2710	2576	2569	33.73
4381	10:15 a.m.	63_{19}	33 35.0	119 16.0	30	11.92	2709	2575	2563	33.71
4382	10:18 a.m.	63_{19}	33 35.0	119 16.0	25	12.31	.....	.....	.....	.....
4383	10:22 a.m.	63_{19}	33 35.0	119 16.0	20	13.73	2707	2573	2525	33.69
4384	10:25 a.m.	63_{19}	33 35.0	119 16.0	17	13.97	.....	.....	.....	.....
4385	10:28 a.m.	63_{19}	33 35.0	119 16.0	15	16.54	2709	2575	2465	33.71
4386	10:32 a.m.	63_{19}	33 35.0	119 16.0	10	17.04	2710	2576	2455	33.73
4387	10:35 a.m.	63_{19}	33 35.0	119 16.0	5	17.44	2711	2577	2446	33.74
4388	10:37 a.m.	63_{19}	33 35.0	119 16.0	300	7.70	2755	2619	2678	34.29
4389	10:38 a.m.	63_{19}	33 35.0	119 16.0	0	17.65	2711	2577	2442	33.74
4390	11:00 a.m.	63_{19}	33 35.2	119 15.8	0	17.9	2711	2577	2435	33.74
4391	11:15 a.m.	63_{19}	33 36.8	119 14.0	0	18.2	2704	2571	2421	33.66
4392	11:30 a.m.	62_{20}	33 38.5	119 12.2	0	17.7	.....	.....	.....	.....
4393	11:45 a.m.	62_{20}	33 40.1	119 10.5	0	17.8	2701	2567	2428	33.61
4394	12:01 p.m.	62_{20}	33 41.7	119 8.7	0	17.8	2704	2571	2431	33.66
4395	12:15 p.m.	61_{21}	33 43.4	119 6.9	0	17.75	2709	2575	2437	33.71
4396	12:30 p.m.	61_{21}	33 45.0	119 5.2	0	18.1	2707	2573	2427	33.69
4397	12:45 p.m.	61_{21}	33 46.6	119 3.4	0	18.7	2706	2572	2411	33.68
4398	1:00 p.m.	60_{22}	33 48.2	119 1.6	0	18.9	2702	2568	2402	33.62
4399	1:15 p.m.	60_{22}	33 49.8	118 59.8	0	19.35	2707	2573	2395	33.69
4400	1:30 p.m.	60_{22}	33 51.7	118 57.7	0	19.4	2707	2573	2394	33.69
4401	1:33 p.m.	59.5_{22}	33 52.0	118 57.5	300	7.79	2752	2616	2674	34.25
4402	1:46 p.m.	59_{22}	From 1:33 to 2:48		100	9.85	2698	2565	2589	33.58
4403	1:55 p.m.	59_{22}	p.m. the boat		75	10.35	2691	2558	2573	33.49
4404	2:00 p.m.	59_{22}	drifted from the		60	11.11	2685	2552	2555	33.41
4405	2:01 p.m.	59_{22}	above position		0	19.4	2705	2572	2392	33.67
4406	2:03 p.m.	59_{22}	to the following		50	11.79	2684	2551	2540	33.40
4407	2:07 p.m.	59_{22}	position		35	12.80	2688	2555	2524	33.46
4408	2:11 p.m.	59_{22}			30	13.37	2685	2552	2511	33.41
4409	2:15 p.m.	59_{22}			25	13.87	.....	.....	.....	.....
4410	2:18 p.m.	59_{22}			17	15.93	2691	2558	2462	33.49
4411	2:22 p.m.	59_{22}			20	14.42	.....	.....	.....	.....
4412	2:26 p.m.	59_{22}			15	17.54	2698	2565	2431	33.58
4413	2:29 p.m.	59_{22}			12	18.52	2701	2567	2411	33.61
4414	2:32 p.m.	59_{22}			10	18.84	2700	2566	2401	33.60
4415	2:35 p.m.	59_{22}			7	19.09	2699	2565	2394	33.58
4416	2:38 p.m.	59_{22}			5	19.29	2700	2566	2389	33.60
4417	2:44 p.m.	59_{22}	33° 50'.0	118° 55'.0	150	9.19	2718	2583	2619	33.82
4418	3:00 p.m.	59_{22}	33 51.0	118 53.4	0	19.5	2702	2568	2386	33.62
4419	3:14 p.m.	58_{23}	33 52.7	118 51.6	0	19.9	2704	2571	2378	33.66
4420	3:30 p.m.	58_{23}	33 54.4	118 49.6	0	19.8	2709	2575	2385	33.71
4421	3:50 p.m.	57_{23}	33 56.5	118 47.0	0	18.9	2712	2578	2412	33.75
4422	4:20 p.m.	(57_{24})	33 59.4	118 46.6	0	17.15	2703	2569	2446	33.64
4423	4:35 p.m.	(57_{24})	34 0.8	118 46.4	0	16.8	2691	2558	2441	33.49
4424	7:00 p.m.	(57_{24})	34 0.8	118 46.4	0	15.8	2700	2566	2494	33.60
			August 9, 1913							
4425	5:16 a.m.	(58_{24})	33 59.5	118 52.0	0	15.3	2694	2561	2479	33.53
4426	5:25 a.m.	$59_{.20}$	34 0.0	118 52.8	12	13.68	2696	2562	2515	33.55
4427	5:27 a.m.	$59_{.20}$	34 0.0	118 52.8	10	14.03	2697	2564	2509	33.57
4428	5:28 a.m.	$59_{.20}$	34 0.0	118 52.8	0	15.4	2695	2562	2499	33.54
4429	5:30 a.m.	$59_{.20}$	34 0.0	118 52.8	7	14.59	.....	.....	.....	.....
4430	5:32 a.m.	$59_{.20}$	34 0.0	118 52.8	5	15.04	.....	.....	.....	.....
4431	5:44 a.m.	(58_{24})	33 59.0	118 49.5	100	9.56	2710	2576	2606	33.73
4432	5:49 a.m.	(58_{24})	33 59.0	118 49.5	75	9.92	2702	2568	2592	33.62
4433	5:50 a.m.	(58_{24})	33 59.0	118 49.5	0	15.75	.....	.....	.....	.....
4434	5:55 a.m.	(58_{24})	33 59.0	118 49.5	60	10.10	2698	2565	2584	33.58
4435	6:12 a.m.	(58_{24})	33 59.0	118 49.5	50	10.42	.....	.....	.....	.....
4436	6:15 a.m.	(58_{24})	33 59.0	118 49.5	40	11.02	2695	2562	2566	33.54
4437	6:20 a.m.	(58_{24})	33 59.0	118 49.5	32	12.28	2694	2561	2540	33.53

Table 1.—Ocean Data—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude		Position: West longitude		Depth in meters	Temperature in centigrade	Specific gravity: 0°/4°.0 S	Specific gravity: 17°.5/17°.5 S	Specific gravity: t°/4°.0 S	Salinity S ‰
			August 9, 1913									
4438	6:25 a.m.	(58_{24})	33	59.0	118	49.5	25	12.53	2694	2561	2535	33.53
4439	6:30 a.m.	(58_{24})	33	59.0	118	49.5	20	12.88	2696	2562	2530	33.55
4440	6:33 a.m.	(58_{24})	33	59.0	118	49.5	17	12.93	2696	2562	2529	33.55
4441	6:36 a.m.	(58_{24})	33	59.0	118	49.5	15	13.23	2698	2565	2526	33.58
4442	6:39 a.m.	(58_{24})	33	59.0	118	49.5	12	13.53	2698	2565	2520	33.58
4443	6:43 a.m.	(58_{24})	33	59.0	118	49.5	10	14.19	2696	2562	2505	33.55
4444	6:46 a.m.	(58_{24})	33	59.0	118	49.5	7	14.74	2695	2562	2492	33.54
4445	6:48 a.m.	(58_{24})	33	59.0	118	49.5	5	14.94	2696	2562	2489	33.55
4446	6:50 a.m.	(58_{24})	33	59.0	118	49.5	0	15.75	2696	2562	2472	33.55
4447	7:10 a.m.	(58_{24})	33	57.7	118	51.0	300	8.46	2755	2619	2666	34.29
4448	7:13 a.m.	(58_{24})	33	57.7	118	51.0	0	17.2	2701	2567	2442	33.61
4449	7:22 a.m.	(58_{24})	33	57.7	118	51.0	200	8.91	.....	.....	.....	.....
4450	7:33 a.m.	(58_{24})	33	57.7	118	51.0	150	9.21	2725	2590	2626	33.91
4451	7:35 a.m.	(58_{24})	33	57.7	118	51.0	0	17.2	2703	2569	2444	33.64
4452	7:40 a.m.	(58_{24})	33	57.7	118	51.0	125	9.29	2716	2582	2615	33.80
4453	7:46 a.m.	(58_{24})	33	57.7	118	51.0	100	9.72	2709	2575	2602	33.71
4454	7:50 a.m.	(58_{24})	33	57.7	118	51.0	75	10.21	2703	2569	2588	33.64
4455	7:55 a.m.	(58_{24})	33	57.7	118	51.0	60	10.66	2694	2561	2571	33.53
4456	8:00 a.m.	(58_{24})	33	57.7	118	51.0	50	11.27	2693	2560	2559	33.51
4457	8:04 a.m.	(58_{24})	33	57.7	118	51.0	40	12.37	.....	.....	.....	.....
4458	8:07 a.m.	(58_{24})	33	57.7	118	51.0	30	13.32	2694	2561	2521	33.53
4459	8:10 a.m.	(58_{24})	33	57.7	118	51.0	25	14.01	2696	2562	2509	33.55
4460	8:13 a.m.	(58_{24})	33	57.7	118	51.0	20	15.13	2697	2564	2486	33.57
4461	8:16 a.m.	(58_{24})	33	57.7	118	51.0	17	15.49	2699	2565	2480	33.58
4462	8:20 a.m.	(58_{24})	33	57.7	118	51.0	15	15.94	2699	2565	2470	33.58
4463	8:23 a.m.	(58_{24})	33	57.7	118	51.0	12	16.39	2699	2565	2459	33.58
4464	8:26 a.m.	(58_{24})	33	57.7	118	51.0	10	16.54	2701	2567	2457	33.61
4465	8:29 a.m.	(58_{24})	33	57.7	118	51.0	7	16.69	2700	2566	2453	33.60
4466	8:50 a.m.	58_{23}	33	56.5	118	52.0	300	8.25	2752	2616	2666	34.25
4467	8:54 a.m.	58_{23}	33	56.5	118	52.0	0	18.5	2708	2574	2418	33.70
4468	9:03 a.m.	58_{23}	33	56.5	118	52.0	200	8.86	2739	2604	2645	34.09
4469	9:11 a.m.	58_{23}	33	56.5	118	52.0	150	9.31	2726	2591	2625	33.93
4470	9:17 a.m.	58_{23}	33	56.5	118	52.0	125	9.36	.....	.....	.....	.....
4471	9:25 a.m.	58_{23}	33	56.5	118	52.0	100	9.61	2709	2575	2604	33.71
4472	9:32 a.m.	58_{23}	33	56.5	118	52.0	75	9.96	2697	2564	2586	33.57
4473	9:34 a.m.	58_{23}	33	56.5	118	52.0	0	18.4	2705	2572	2417	33.67
4474	9:37 a.m.	58_{23}	33	56.5	118	52.0	60	10.43	2691	2558	2571	33.49
4475	9:42 a.m.	58_{23}	33	56.5	118	52.0	50	11.11	2693	2560	2562	33.51
4476	9:46 a.m.	58_{23}	33	56.5	118	52.0	40	11.61	2693	2560	2553	33.51
4477	9:50 a.m.	58_{23}	33	56.5	118	52.0	30	12.12	2692	2559	2542	33.50
4478	9:54 a.m.	58_{23}	33	56.5	118	52.0	25	12.56	2692	2559	2533	33.50
4479	9:57 a.m.	58_{23}	33	56.5	118	52.0	20	13.63	2694	2561	2514	33.53
4480	10:01 a.m.	58_{23}	33	56.5	118	52.0	17	14.43	2697	2564	2500	33.57
4481	10:04 a.m.	58_{23}	33	56.5	118	52.0	15	15.13	2697	2564	2486	33.57
4482	10:07 a.m.	58_{23}	33	56.5	118	52.0	12	15.53	2695	2562	2475	33.54
4483	10:10 a.m.	58_{23}	33	56.5	118	52.0	10	16.13	2698	2565	2464	33.58
4484	10:12 a.m.	58_{23}	33	56.5	118	52.0	7	17.69	2703	2569	2432	33.64
4485	10:15 a.m.	58_{23}	33	56.5	118	52.0	5	17.84	2702	2568	2428	33.62
4486	10:30 a.m.	58_{23}	33	55.6	118	50.0	0	18.1	2707	2573	2427	33.69
4487	10:45 a.m.	58_{23}	33	54.5	118	47.7	0	17.6	2703	2569	2435	33.64
4488	11:00 a.m.	57_{23}	33	53.4	118	45.3	0	16.9	2701	2567	2449	33.61
4489	11:15 a.m.	57_{22}	33	52.3	118	43.0	0	16.9	2705	2572	2452	33.67
4490	11:30 a.m.	56_{22}	33	51.2	118	40.7	0	17.2	2702	2568	2443	33.62
4491	11:45 a.m.	56_{22}	33	50.1	118	38.4	0	17.6	2706	2572	2438	33.68
4492	12:01 p.m.	55_{22}	33	49.0	118	36.0	0	17.8	2706	2572	2434	33.68
4493	12:15 p.m.	55_{22}	33	47.9	118	33.7	0	17.9	.....	.....	.....	.....
4494	12:30 p.m.	54_{21}	33	46.8	118	31.4	0	17.6	2700	2566	2432	33.60
4495	12:45 p.m.	54_{21}	33	45.7	118	29.1	0	17.7	2694	2561	2423	33.53
4496	1:02 p.m.	(53_{21})	33	44.5	118	26.4	0	17.4	2699	2565	2435	33.58
4497	1:15 p.m.	(53_{21})	33	43.6	118	24.4	0	16.0	2693	2560	2462	33.51
4498	1:30 p.m.	(53_{21})	33	44.0	118	22.9	0	17.1	2698	2565	2442	33.58

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°0	Specific gravity: 17°5 S/17°5	Specific gravity: t° S/4°0	Salinity S ‰
			August 9, 1913							
4499	1:45 p.m.	(52_{21})	33 43.3	118 21.3	0	17.1	2689	2556	2433	33.47
4500	2:00 p.m.	(52_{21})	33 42.7	118 19.6	0	16.9	2690	2557	2438	33.48
4501	2:33 p.m.	52_{20}	33 41.9	118 17.7	0	17.6	2694	2561	2426	33.53
4502	2:43 p.m.	51_{20}	33 41.9	118 15.6	0	17.45	2694	2561	2429	33.53
4503	2:51 p.m.	51_{20}	33 42.0	118 14.0	0	17.05	2691	2558	2436	33.49
			August 10, 1913							
4504	5:47 a.m.	51_{20}	33 42.0	118 14.0	0	16.6	2694	2561	2449	33.53
4505	6:03 a.m.	51_{20}	33 41.9	118 17.2	0	16.2	2692	2559	2456	33.50
4506	6:15 a.m.	(52_{21})	33 42.7	118 19.5	0	16.3	2696	2562	2458	33.55
4507	6:30 a.m.	(52_{21})	33 43.5	118 21.2	0	16.3	2694	2561	2456	33.53
4508	6:45 a.m.	(53_{21})	33 43.8	118 23.0	0	16.0	2694	2561	2463	33.53
4509	6:53 a.m.	(53_{21})	33 43.8	118 24.6	0	16.2	2699	2565	2463	33.58
4510	7:00 a.m.	(53_{21})	33 45.0	118 25.0	0	15.9	2698	2565	2470	33.58
4511	7:27 a.m.	(53_{21})	33 45.0	118 25.0	0	15.9	2697	2564	2469	33.57
4512	7:30 a.m.	(53_{21})	33 45.0	118 25.0	15	12.90	2697	2564	2531	33.57
4513	7:33 a.m.	(53_{21})	33 45.0	118 25.0	12	13.41	2699	2565	2524	33.58
4514	7:36 a.m.	(53_{21})	33 45.0	118 25.0	10	13.73	2697	2564	2515	33.57
4515	7:39 a.m.	(53_{21})	33 45.0	118 25.0	7	14.43	2696	2562	2499	33.55
4516	7:42 a.m.	(53_{21})	33 45.0	118 25.0	5	14.54	2697	2564	2498	33.57
4517	7:45 a.m.	(53_{21})	33 45.0	118 25.0	0	15.8	2696	2562	2470	33.55
4518	7:54 a.m.	(53_{21})	33 44.5	118 26.2	100	9.63	2715	2580	2609	33.78
4519	7:55 a.m.	(53_{21})	33 44.5	118 26.2	0	16.7	2703	2569	2456	33.64
4520	8:02 a.m.	(53_{21})	33 44.5	118 26.2	75	9.85	2706	2572	2597	33.68
4521	8:07 a.m.	(53_{21})	33 44.5	118 26.2	60	10.21	2700	2566	2585	33.60
4522	8:11 a.m.	(53_{21})	33 44.5	118 26.2	50	10.58	2700	2566	2578	33.60
4523	8:15 a.m.	(53_{21})	33 44.5	118 26.2	40	11.02	2694	2561	2566	33.53
4524	8:18 a.m.	(53_{21})	33 44.5	118 26.2	30	12.01	2693	2560	2545	33.51
4525	8:22 a.m.	(53_{21})	33 44.5	118 26.2	25	12.20	2691	2558	2539	33.49
4526	8:26 a.m.	(53_{21})	33 44.5	118 26.2	20	12.43	2692	2559	2536	33.50
4527	8:30 a.m.	(53_{21})	33 44.5	118 26.2	17	13.13	2692	2559	2522	33.50
4528	8:33 a.m.	(53_{21})	33 44.5	118 26.2	15	13.43	2692	2559	2516	33.50
4529	8:36 a.m.	(53_{21})	33 44.5	118 26.2	12	13.63	2692	2559	2512	33.50
4530	8:39 a.m.	(53_{21})	33 44.5	118 26.2	10	13.78	2684	2551	2502	33.40
4531	8:43 a.m.	(53_{21})	33 44.5	118 26.2	7	14.08	2681	2549	2493	33.37
4532	8:45 a.m.	(52_{21})	33 44.5	118 26.2	5	14.94	2698	2565	2491	33.58
4533	8:46 a.m.	(53_{21})	33 44.5	118 26.2	0	16.8	2702	2568	2452	33.62
4534	8:52 a.m.	(53_{21})	33 44.5	118 27.0	300	8.31	2755	2619	2668	34.29
4535	9:03 a.m.	(53_{21})	33 44.5	118 27.0	100	9.62	2713	2579	2608	33.77
4536	9:09 a.m.	(53_{21})	33 44.5	118 27.0	75	9.91	2705	2572	2595	33.67
4537	9:14 a.m.	(53_{21})	33 44.5	118 27.0	60	10.51	2697	2564	2577	33.57
4538	9:20 a.m.	(53_{21})	33 44.5	118 27.0	50	10.84	2696	2562	2570	33.55
4539	9:24 a.m.	(53_{21})	33 44.5	118 27.0	40	11.32	2694	2561	2559	33.53
4540	9:26 a.m.	(53_{21})	33 44.5	118 27.0	0	16.4	2698	2565	2458	33.58
4541	9:27 a.m.	(53_{21})	33 44.5	118 27.0	30	11.62	2693	2560	2553	33.51
4542	9:32 a.m.	(53_{21})	33 44.5	118 27.0	25	12.04	2692	2559	2543	33.50
4543	9:35 a.m.	(53_{21})	33 44.5	118 27.0	20	12.52	2696	2562	2538	33.55
4544	9:38 a.m.	(53_{21})	33 44.5	118 27.0	17	12.93	2694	2561	2527	33.53
4545	9:42 a.m.	(53_{21})	33 44.5	118 27.0	15	13.63	2694	2561	2514	33.53
4546	9:46 a.m.	(53_{21})	33 44.5	118 27.0	12	13.74	2692	2559	2510	33.50
4547	9:49 a.m.	(53_{21})	33 44.5	118 27.0	10	14.18	2694	2561	2503	33.53
4548	9:52 a.m.	(53_{21})	33 44.5	118 27.0	7	14.83	2699	2565	2494	33.58
4549	9:54 a.m.	(53_{21})	33 44.5	118 27.0	5	15.39	2698	2565	2481	33.58
4550	9:56 a.m.	(53_{21})	33 44.5	118 27.0	0	16.35	2700	2566	2461	33.60
4551	10:15 a.m.	53_{20}	33 41.9	118 26.4	0	16.8	.....	.....	.....	.....
4552	10:30 a.m.	53_{20}	33 39.8	118 26.0	0	17.55	2697	2564	2430	33.57
4553	10:45 a.m.	53_{20}	33 37.7	118 25.6	0	17.75	.....	.....	.....	.....
4554	11:00 a.m.	53_{20}	33 35.7	118 25.2	0	17.8	.....	.....	.....	.....
4555	11:05 a.m.	53_{19}	33 35.0	118 25.0	200	9.01	2740	2605	2643	34.10
4556	11:13 a.m.	53_{19}			150	9.26	2723	2589	2623	33.89
4557	11:18 a.m.	53_{19}			125	9.36	2723	2589	2621	33.89
4558	11:20 a.m.	53_{19}			0	17.8	.....	.....	.....	.....

Table 1.—Ocean Data—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°.0	Specific gravity: 17°.5 S/17°.5	Specific gravity: t° S/4°.0	Salinity S ‰
			August 10, 1913							
4559	11:30 a.m.	53_{19}	From 11:05 a.m. to		100	9.56	2714	2580	2610	33.78
4560	11:36 a.m.	52_{19}	12:30 p.m. the		75	9.72	2705	2572	2598	33.67
4561	11:42 a.m.	52_{19}	boat drifted from		60	9.92	2702	2568	2592	33.62
4562	11:46 a.m.	52_{19}	the above position		50	10.31	2694	2561	2577	33.53
4563	11:50 a.m.	52_{19}	to the following		40	11.06	2691	2558	2561	33.49
4564	11:54 a.m.	52_{19}	position		30	11.62	2692	2559	2552	33.50
4565	11:58 a.m.	52_{19}			25	12.04	2689	2556	2540	33.47
4566	12:02 p.m.	52_{19}			20	13.22	2691	2558	2520	33.49
4567	12:05 p.m.	52_{19}			17	13.42	2692	2559	2517	33.50
4568	12:08 p.m.	52_{19}			15	14.02	2691	2558	2504	33.49
4569	12:12 p.m.	52_{19}			12	15.13	2693	2560	2482	33.51
4570	12:14 p.m.	52_{19}			10	15.38	2697	2564	2480	33.57
4571	12:16 p.m.	52_{19}			7	16.69	2695	2562	2448	33.54
4572	12:18 p.m.	52_{19}			5	17.19	2695	2562	2436	33.54
4573	12:19 p.m.	52_{19}	33° 33′.0	118° 18′.0	0	18.0	2695	2562	2417	33.54
4574	12:45 p.m.	52_{18}	33 30.0	118 18.3	0	19.8	2705	2572	2381	33.67
			August 11, 1913							
4575	12:20 a.m.	52_{16}	33 20.6	18 18.8	0	19.7	2709	2575	2388	33.71
4576	12:30 a.m.	51_{16}	33 20.1	18 17.4	0	19.5	2705	2572	2389	33.67
4577	12:40 a.m.	51_{16}	33 19.5	118 15.8	0	19.35	2705	2572	2393	33.67
4578	1:00 a.m.	51_{16}	33 18.4	118 13.2	0	18.4	2699	2565	2411	33.58
4579	1:20 a.m.	50_{15}	33 17.3	118 10.4	0	18.2	2700	2566	2417	33.60
4580	1:40 a.m.	50_{15}	33 16.2	118 7.6	0	18.4	2700	2566	2412	33.60
4581	2:00 a.m.	49_{15}	33 15.0	118 4.7	0	18.6	2700	2566	2407	33.60
4582	2:20 a.m.	48_{15}	33 13.9	118 1.9	0	18.8	2701	2567	2403	33.61
4583	2:40 a.m.	48_{15}	33 12.8	117 59.1	0	19.4	2706	2572	2393	33.68
4584	3:00 a.m.	47_{14}	33 11.6	117 56.3	0	20.0	2702	2568	2373	33.62
4585	3:20 a.m.	47_{14}	33 10.5	117 53.5	0	20.0	2704	2571	2375	33.66
4586	3:40 a.m.	46_{14}	33 9.4	117 50.7	0	19.5	2705	2572	2389	33.67
4587	4:00 a.m.	46_{14}	33 8.3	117 47.9	0	19.0	2713	2579	2410	33.77
4588	4:20 a.m.	45_{13}	33 7.2	117 45.0	0	18.7	.....	.....	.....	.....
4589	4:40 a.m.	44_{13}	33 6.1	117 42.2	0	19.0	2703	2569	2400	33.64
4590	5:00 a.m.	44_{13}	33 4.9	117 39.4	0	19.2	2704	2571	2396	33.66
4591	5:20 a.m.	43_{13}	33 3.8	117 36.6	0	19.0	2703	2569	2400	33.64
4592	5:40 a.m.	43_{13}	33 2.6	117 33.8	0	18.8	2699	2565	2401	33.58
4593	6:00 a.m.	42_{12}	33 1.5	117 30.8	0	19.25	2702	2568	2393	33.62
4594	6:20 a.m.	42_{12}	33 0.4	117 28.2	0	19.0	2704	2571	2401	33.66
4595	6:40 a.m.	41_{12}	32 59.3	117 26.3	0	18.9	2702	2568	2402	33.62
4596	7:20 a.m.	40_{11}	32 57.0	117 20.2	0	17.6	2700	2566	2432	33.60
4597	7:40 a.m.	40_{11}	32 55.8	117 17.9	0	19.4	2702	2568	2389	33.62
4598	8:20 a.m.	(39_{11})	32 54.0	117 16.8	0	18.8	2703	2569	2405	33.64
			August 24, 1913							
4599	10:00 a.m.	$(39_{10.5})$	32 52.5	117 15.3	0	15.9	2693	2560	2465	33.51
			August 25, 1913							
4600	2:40 p.m.	(39_{10})	32 51.1	117 16.3	0	21.25	2695	2562	2333	33.54
4601	2:50 p.m.	(39_{10})	32 51.5	117 16.5	0	21.1	2695	2562	2336	33.54
4602	3:25 p.m.	(39_{10})	32 51.6	117 17.0	3	18.5	2694	2561	2404	33.53
4603	3:26 p.m.	(39_{10})	32 51.6	117 17.0	0	19.7	2694	2561	2373	33.53
4604	3:45 p.m.	(39_{10})	32 51.5	117 16.8	0	20.1	2694	2561	2362	33.53
4605	3:50 p.m.	(39_{10})	32 51.8	117 16.8	0	19.9	2694	2561	2368	33.53
4606	4:15 p.m.	(39_{10})	32 51.6	117 16.0	0	20.25	2696	2562	2361	33.55
4607	5:00 p.m.	(39_{10})	32 51.3	117 15.8	0	17.3	2693	2560	2432	33.51
			August 26, 1913							
4608	10:00 a.m.	$(39_{10.5})$	32 52.5	117 15.3	0	18.5	2693	2560	2403	33.51
			September 12, 1913							
4609	3:15 p.m.	40_4	32 22.4	117 21.2	1	21.1	2698	2565	2339	33.58
4610	3:30 p.m.	40_4	32 22.1	117 21.0	0	21.1	2699	2565	2340	33.58
4611	3:35 p.m.	40_4	32 22.0	117 20.9	5	21.15	2697	2564	2337	33.57
4612	4:00 p.m.	40_4	32 21.5	117 20.5	0	21.15	2703	2569	2343	33.64
4613	4:30 p.m.	40_4	32 20.5	117 19.7	0	21.0	2702	2568	2346	33.62
4614	5:42 p.m.	40_4	32 22.4	117 21.2	0	20.9	2706	2572	2353	33.68
4615	6:03 p.m.	40_4	32 21.9	117 20.8	0	29.8	2703	2569	2352	33.64

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: $S\frac{0°}{4°.0}$	Specific gravity: $S\frac{17°.5}{17°.5}$	Specific gravity: $S\frac{t°}{4°.0}$	Salinity S ‰
			September 12, 1913							
4616	6:30 p.m.	40_4	32 21.5	117 20.4	0	20.8	2705	2572	2354	33.67
4617	7:00 p.m.	40_4	32 21.0	117 20.0	0	20.9	.....	.....	.....	.....
4618	7:35 p.m.	40_4	32 20.4	117 19.5	0	20.8	2712	2578	2361	33.75
4619	8:55 p.m.	40_4	32 22.3	117 21.1	0	20.7	2705	2572	2357	33.67
4620	10:00 p.m.	40_4	32 21.3	117 20.2	0	20.8	2696	2562	2343	33.55
			September 13, 1913							
4621	6:20 p.m.	40_4	32 22.4	117 21.2	1	20.65	2698	2565	2352	33.58
4622	6:30 p.m.	40_4	32 22.2	117 20.9	5	20.65	.....	.....	.....	.....
4623	6:35 p.m.	40_4	32 22.2	117 20.9	0	20.7	2705	2572	2347	33.67
4624	7:00 p.m.	40_4	32 21.9	117 20.4	0	20.6	.....	.....	.....	.....
4625	7:30 p.m.	40_4	32 21.6	117 19.9	0	20.6	2708	2574	2363	33.70
			September 17, 1913							
4626	6:00 p.m.	40_4	32 22.4	117 21.2	1	21.3	2694	2561	2330	33.53
4627	6:06 p.m.	$40_{4.5}$	32 22.5	117 21.2	5	21.05	2694	2561	2337	33.53
4628	6:30 p.m.	40_5	32 22.8	117 21.3	0	21.2	2706	2572	2345	33.68
4629	7:06 p.m.	40_5	32 23.3	117 21.3	0	21.0	2705	2572	2349	33.67
4630	7:30 p.m.	40_5	32 23.7	117 21.3	0	20.9	2706	2572	2352	33.68
4631	8:50 p.m.	40_4	32 22.4	117 21.2	0	20.9	2705	2572	2352	33.67
4632	10:15 p.m.	40_4	32 22.4	117 21.2	0	20.7	2703	2569	2355	33.64
			September 18, 1913							
4633	9:18 p.m.	40_4	32 22.4	117 21.2	1	21.2	2697	2564	2336	33.57
4634	9:24 p.m.	40_4	32 22.3	117 21.2	5	20.45	2698	2565	2357	33.58
4635	10:02 p.m.	40_4	32 22.2	117 21.3	0	21.1	2700	2566	2341	33.60
4636	10:28 p.m.	40_4	32 22.1	117 21.4	0	21.1	2702	2568	2343	33.62
4637	10:55 p.m.	40_4	32 22.0	117 21.5	0	21.2	2701	2567	2340	33.61
4638	11:27 p.m.	40_4	32 21.8	117 21.6	0	20.8	2698	2565	2346	33.58
4639	11:55 p.m.	40_4	32 21.7	117 21.6	0	21.0	2696	2562	2340	33.55
			September 19, 1913							
4640	12:45 a.m.	40_4	32 21.5	117 21.7	0	20.0	2698	2565	2369	33.58
4641	1:31 a.m.	40_4	32 21.3	117 21.9	0	21.0	2699	2565	2343	33.58
			September 20, 1913							
4642	12:15 a.m.	40_4	32 22.4	117 21.2	1	20.4	2704	2571	2364	33.66
4643	12:25 a.m.	40_4	32 22.4	117 21.3	5	20.25	2715	2580	2380	33.78
4644	12:45 a.m.	40_4	32 22.4	117 21.5	0	20.4	2704	2571	2364	33.66
4645	1:30 a.m.	40_4	32 22.4	117 22.0	0	20.1	2704	2571	2372	33.66
4646	2:00 a.m.	40_4	32 22.3	117 22.4	0	20.2	2706	2572	2372	33.68
4647	2:28 a.m.	40_4	32 22.3	117 22.5	0	19.95	2700	2566	2373	33.60
4648	3:17 a.m.	40_4	32 22.4	117 21.2	0	20.2	2708	2574	2374	33.70
4649	3:45 a.m.	40_4	32 22.1	117 20.8	0	20.1	2701	2567	2369	33.61
4650	4:13 a.m.	40_4	32 21.6	117 20.2	0	20.2	2707	2573	2373	33.69
			September 21, 1913							
4651	3:22 a.m.	40_4	32 22.4	117 21.2	1	19.4	2694	2561	2381	33.53
4652	3:26 a.m.	40_4	32 22.4	117 21.1	5	19.25	2694	2561	2384	33.53
4653	4:10 a.m.	40_4	32 22.2	117 20.7	0	19.3	2701	2567	2390	33.61
4654	4:30 a.m.	40_4	32 22.1	117 20.5	0	19.2	2709	2575	2401	33.71
4655	4:58 a.m.	40_4	32 22.0	117 20.2	0	19.0	.....	.....	.....	.....
4656	5:30 a.m.	40_4	32 21.9	117 19.8	0	19.2	2702	2568	2394	33.62
4657	6:01 a.m.	40_4	32 22.4	117 21.2	0	19.1	2701	2567	2396	33.61
4658	6:32 a.m.	40_4	32 22.2	117 21.1	0	19.2	2704	2571	2396	33.66
4659	6:59 a.m.	40_4	32 22.0	117 21.0	0	19.5	2700	2566	2384	33.60
4660	7:32 a.m.	40_4	32 21.8	117 20.9	0	19.6	2703	2569	2384	33.64
4661	8:12 a.m.	40_4	32 21.5	117 20.8	0	19.6	2701	2567	2382	33.61
4662	8:43 a.m.	40_4	32 21.2	117 20.6	0	19.6	2706	2572	2387	33.68
			September 22, 1913							
4663	6:10 a.m.	40_4	32 22.4	117 21.2	1	19.0	2693	2560	2390	33.51
4664	6:15 a.m.	$40_{4.5}$	32 22.5	117 21.1	5	18.65	2694	2561	2400	33.53
4665	6:30 a.m.	40_5	32 22.6	117 21.4	0	18.8	2702	2568	2404	33.62
4666	7:00 a.m.	40_5	32 22.8	117 21.6	0	18.8	2697	2564	2399	33.57
4667	7:30 a.m.	40_5	32 23.0	117 20.4	0	18.9	2702	2568	2402	33.62
4668	7:57 a.m.	40_5	32 23.2	117 20.2	0	18.9	2701	2567	2401	33.61
4669	8:45 a.m.	40_5	32 23.2	117 20.4	0	19.0	2703	2569	2400	33.64
4670	9:28 a.m.	40_5	32 23.3	117 20.0	0	18.95	2704	2571	2402	33.66

Table 1.—Ocean Data—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: $\frac{0°}{4°.0}$ S	Specific gravity: $\frac{17°.5}{17°.5}$ S	Specific gravity: $\frac{t°}{4°.0}$ S	Salinity S ‰
			September 22, 1913							
4671	10:06 a.m.	40_4	32 22.4	117 21.2	0	19.2	2705	2572	2397	33.67
4672	10:28 a.m.	40_4	32 22.4	117 20.9	0	19.0	2700	2566	2397	33.60
4673	11:00 a.m.	40_4	32 22.3	117 20.4	0	19.0	2703	2569	2400	33.64
			September 23, 1913							
4674	9:16 a.m.	40_4	32 22.4	117 21.2	1	20.1	2697	2564	2365	33.57
4675	9:22 a.m.	$40_{4.5}$	32 22.5	117 21.1	5	20.15	2694	2561	2361	33.53
4676	9:32 a.m.	$40_{4.5}$	32 22.5	117 21.1	0	20.1	2705	2572	2373	33.67
4677	10:07 a.m.	40_5	32 22.7	117 20.8	0	20.2	2705	2572	2371	33.67
4678	10:37 a.m.	40_5	32 22.8	117 20.8	0	20.2	2706	2572	2372	33.68
4679	11:26 a.m.	40_5	32 23.6	117 20.6	0	20.3	.....	.....	.....	.....
			September 24, 1913							
4680	12:19 p.m.	40_4	32 22.4	117 21.2	1	20.75	2694	2561	2345	33.53
4681	12:30 p.m.	40_4	32 22.2	117 20.7	5	20.15	2697	2564	2364	33.57
4682	12:46 p.m.	40_4	32 22.1	117 20.5	0	21.0	.....	.....	.....	.....
4683	1:18 p.m.	40_4	32 22.0	117 20.1	0	20.8	2713	2579	2362	33.77
4684	1:59 p.m.	40_4	32 22.2	117 21.1	0	20.7	.....	.....	.....	.....
4685	2:30 p.m.	40_4	32 21.9	117 21.0	0	20.7	2711	2577	2363	33.74
4686	2:58 p.m.	40_4	32 21.6	117 20.9	0	20.7	2712	2578	2364	33.75
4687	3:26 p.m.	40_4	32 22.4	117 21.2	0	20.6	2700	2566	2355	33.60
4688	4:05 p.m.	40_4	32 22.0	117 20.9	0	20.5	.....	.....	.....	.....
4689	4:38 p.m.	40_4	32 21.9	117 20.9	0	20.5	2704	2571	2361	33.66
4690	5:06 p.m.	40_4	32 21.8	117 20.7	0	20.5	2707	2573	2364	33.69
			September 26, 1913							
4691	12:02 a.m.	40_4	32 20	117 21	5	20.05	2699	2565	2368	33.58
4692	4:55 a.m.	40_2	32 9	117 19	1	20.1	2701	2567	2369	33.61
4693	8:28 a.m.	40_4	32 22.4	117 21.2	1	20.1	2697	2564	2365	33.57
			May 8, 1914							
4694	5:42 a.m.	40_5	32 22.7	117 19.2	0	14.95	2698	2565	2491	33.58
4695	5:56 a.m.	40_5	From 5:38 to 9:17		6	13.93	2690	2557	2504	33.48
4696	6:14 a.m.	40_5	a.m. the boat		9	12.83	2689	2557	2525	33.48
4697	6:19 a.m.	40_5	steamed from the		9	12.74	2686	2553	2523	33.42
4698	6:28 a.m.	40_5	above position		17	11.42	2686	2553	2550	33.42
4699	6:34 a.m.	40_5	to the following		17	11.27	.....	.....	.....	.....
4700	6:43 a.m.	40_5	position		17	11.63	.....	.....	.....	.....
4701	6:48 a.m.	40_5			17	11.73	2688	2555	2545	33.46
4702	6:53 a.m.	40_5			0	14.9	2691	2558	2488	33.49
4703	6:53 a.m.	40_5			44	10.14	2703	2569	2589	33.64
4704	6:58 a.m.	40_5			44	10.01	2707	2573	2595	33.69
4705	7:28 a.m.	40_5			0	14.95	2695	2562	2488	33.54
4706	7:28 a.m.	40_5			88	9.14	2738	2602	2640	34.07
4707	7:33 a.m.	40_5			88	9.19	2732	2597	2633	34.00
4708	7:45 a.m.	40_5			90	9.06	2735	2600	2638	34.04
4709	7:50 a.m.	40_5			90	9.18	2732	2597	2633	34.00
4710	8:00 a.m.	40_5			0	14.95	2690	2557	2438	33.48
4711	8:02 a.m.	40_5			128	8.95	2744	2608	2649	34.14
4712	8:07 a.m.	40_5			128	8.97	2740	2605	2644	34.10
4713	8:21 a.m.	40_5			133	8.95	2745	2609	2650	34.16
4714	8:26 a.m.	40_5			133	9.02	.....	.....	.....	.....
4715	8:38 a.m.	40_5			0	15.1	2699	2565	2489	33.58
4716	8:39 a.m.	40_5			168	8.65	2758	2622	2666	34.33
4717	8:44 a.m.	40_5			168	8.91	.....	.....	.....	.....
4718	8:57 a.m.	40_5			170	8.69	.....	.....	.....	.....
4719	9:02 a.m.	40_5			78	9.27	2724	2590	2624	33.90
4720	9:15 a.m.	40_5	32° 22′.7	117° 18′.9	0	15.3	2699	2565	2484	33.58
4721	10:12 a.m.	40_5	32 22.7	117 19.2	0	15.9	2697	2564	2469	33.57
4722	10:23 a.m.	40_5	32 22.7	117 19.2	8	13.03	2694	2561	2526	33.53
4723	10:34 a.m.	40_5	32 22.7	117 19.2	9	12.82	.....	.....	.....	.....
4724	10:39 a.m.	40_5	32 22.7	117 19.2	9	13.03	2686	2553	2518	33.42
4725	10:45 a.m.	40_5	32 22.7	117 19.2	16	11.82	.....	.....	.....	.....
4726	10:56 a.m.	40_5	32 22.7	117 19.2	18	11.63	.....	.....	.....	.....
4727	11:10 a.m.	40_5	32 22.7	117 19.2	44	10.17	2706	2572	2591	33.68
4728	11:20 a.m.	40_5	32 22.7	117 19.2	0	16.2	2697	2564	2461	33.57

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°0	Specific gravity: 17°5 S/17°5	Specific gravity: t° S/4°0	Salinity S ‰
			May 8, 1914							
4729	11:22 a.m.	40_5	32 22.7	117 19.2	40	10.17	2698	2565	2583	33.58
4730	11:44 a.m.	40_5	32 22.7	117 19.2	40	10.30	2696	2562	2579	33.55
4731	11:55 a.m.	40_5	32 22.7	117 19.2	0	16.3	2691	2558	2453	33.49
4732	12:50 p.m.	40_5	32 22.7	117 19.2	46	10.09	2705	2572	2591	33.67
4733	12:55 p.m.	40_5	32 22.7	117 19.2	46	10.09	2702	2568	2588	33.62
4734	1:02 p.m.	40_5	32 22.7	117 19.2	88	9.28	2728	2593	2627	33.95
4735	1:07 p.m.	40_5	32 22.7	117 19.2	88	9.26	2726	2591	2625	33.93
4736	1:19 p.m.	40_5	32 22.7	117 19.2	88	9.29	2725	2590	2624	33.91
4737	1:24 p.m.	40_5	32 22.7	117 19.2	88	9.36	.....	.....	.....	.....
4738	1:34 p.m.	40_5	32 22.7	117 19.2	124	9.12	2745	2609	2647	34.16
4739	1:39 p.m.	40_5	32 22.7	117 19.2	85	9.36	2730	2595	2628	33.97
4740	1:56 p.m.	40_5	32 22.7	117 19.2	0	16.5	2696	2562	2453	33.55
4741	6:05 p.m.	40_5	32 22.7	117 19.2	0	15.7	2695	2562	2472	33.54
4742	6:25 p.m.	40_5	From 6:05 to 9:05		9	.....	2685	2552	.....	33.41
4743	6:30 p.m.	40_5	p.m. the boat		9	.....	2690	2557	.....	33.48
4744	6:37 p.m.	40_5	steamed from the		9	.....	2686	2553	.....	33.42
4745	6:50 p.m.	40_5	above position		6	13.99	2689	2556	2502	33.47
4746	6:55 p.m.	40_5	to the following		6	14.14	2688	2555	2498	33.46
4747	7:02 p.m.	40_5	position		0	15.7	2691	2558	2468	33.49
4748	7:16 p.m.	40_4			45	9.93	2705	2572	2595	33.67
4749	7:21 p.m.	40_4			45	9.87	2704	2571	2595	33.68
4750	7:35 p.m.	40_4			45	9.86	2705	2572	2596	33.67
4751	7:49 p.m.	40_4			90	9.24	2738	2602	2638	34.07
4752	7:54 p.m.	40_4			90	.....	2741	2605	.....	34.11
4753	8:09 p.m.	40_4			136	8.79	.....	.....	.....	.....
4754	8:40 p.m.	40_4			165	8.69	2749	2613	2656	34.22
4755	8:45 p.m.	40_4			95	9.38	2735	2600	2632	34.04
4756	9:00 p.m.	40_4	32° 22′.1	117° 18′.8	0	15.6	2696	2562	2475	33.55
			May 9, 1914							
4757	8:35 a.m.	39_5	32 23.0	117 14.3	0	15.6	2691	2558	2470	33.49
4758	8:45 a.m.	39_5	32 22.8	117 15.5	0	15.3	2692	2559	2477	33.50
4759	9:00 a.m.	39.5_4	32 22.3	117 17.5	0	15.3	2694	2561	2479	33.53
4760	9:15 a.m.	40_4	32 21.9	117 19.6	0	15.5	2689	2556	2470	33.47
4761	9:30 a.m.	40_4	32 21.5	117 21.6	0	15.8	2688	2555	2462	33.46
4762	9:46 a.m.	41_4	32 21.0	117 24.0	0	15.9	2690	2557	2462	33.48
4763	9:57 a.m.	41_4	From 9:46 a.m. to		0	15.9	2693	2560	2465	33.51
4764	10:13 a.m.	41_4	12:25 p.m. the boat		9	15.84	.....	.....	.....	.....
4765	10:18 a.m.	41_4	steamed from the		9	15.85	.....	.....	.....	.....
4766	10:26 a.m.	41_4	above position		0	16.0	2694	2561	2463	33.53
4767	10:27 a.m.	41_4	to the following		5	15.79	2689	2556	2463	33.47
4768	10:32 a.m.	41_4	position		9	15.43	.....	.....	.....	.....
4769	10:41 a.m.	41_4			17	12.42	.....	.....	.....	.....
4770	10:53 a.m.	41_4			18	12.22	.....	.....	.....	
4771	12:20 p.m.	41_4			0	16.4	2691	2558	2451	33.49
4772	12:28 p.m.	41_4	32° 21′.5	117° 23′.9	44	10.27	2700	2566	2584	33.60
4773	12:59 p.m.	41_4	From 12:25 to 1:20		46	10.19	2696	2562	2581	33.55
4774	1:10 p.m.	41_4	p.m. boat steamed		84	9.48	2729	2594	2625	33.96
4775	1:15 p.m.	41_4	from the above to		84	9.39	2723	2589	2620	33.89
4776	1:20 p.m.	41_4	following position		0	16.5	2695	2562	2452	33.54
4777	1:30 p.m.	41_4	32° 21′.2	117° 23′.3	137	9.18	.....	.....	.....	.....
			May 10, 1914							
4778	4:33 a.m.	39_5	32 23.0	117 14.3	0	15.0	2694	2561	2486	33.53
4779	4:45 a.m.	39_5	32 22.6	117 16.1	0	15.0	2694	2561	2486	33.53
4780	5:00 a.m.	40_4	32 22.2	117 18.0	0	15.3	2689	2556	2474	33.47
4781	5:15 a.m.	40_4	32 21.8	117 20.0	0	15.0	2691	2558	2483	33.49
4782	5:30 a.m.	40_4	32 21.4	117 22.0	0	15.2	2683	2550	2471	33.39
4783	5:45 a.m.	41_4	32 21.0	117 24.0	0	15.6	2687	2554	2466	33.44
4784	5:55 a.m.	41_4	32 21.0	117 24.0	0	15.6	2688	2555	2467	33.46
4785	6:06 a.m.	41_4	32 21.0	117 24.0	9	15.23	2683	2550	2470	33.39
4786	6:11 a.m.	41_4	32 21.0	117 24.0	9	15.09	2686	2553	2476	33.42
4787	6:17 a.m.	41_4	32 21.0	117 24.0	9	15.04	2685	2552	2476	33.41

Table 1.—Ocean Data—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0°/4°.0	Specific gravity: 17°.5/17°.5	Specific gravity: t°/4°.0	Salinity S ‰
			May 10, 1914							
4788	6:22 a.m.	41_4	32 21.0	117 24.0	9	15.05	2685	2552	2476	33.41
4789	6:34 a.m.	41_4	32 21.0	117 24.0	18	11.91	.....	.....	.....	.....
4790	6:39 a.m.	41_4	32 21.0	117 24.0	18	11.50	2686	2553	2554	33.42
4791	6:49 a.m.	41_4	32 21.0	117 24.0	18	11.83	.....	.....	.....	.....
4792	7:27 a.m.	41_4	32 21.0	117 24.0	0	15.7	2692	2559	2469	33.50
4793	7:30 a.m.	41_4	32 21.0	117 24.0	5	15.86	2688	2555	2461	33.46
4794	7:35 a.m.	41_4	32 21.0	117 24.0	42	10.30	2694	2561	2577	33.53
4795	7:48 a.m.	41_4	32 21.0	117 24.0	44	10.35	.....	.....	.....	.....
4796	8:00 a.m.	41_4	32 21.0	117 24.0	88	9.65	.....	.....	.....	.....
4797	8:15 a.m.	41_4	32 21.0	117 24.0	88	9.40	2726	2591	2623	33.93
4798	8:23 a.m.	41_4	32 21.0	117 24.0	0	15.8	2691	2558	2465	33.49
4799	8:26 a.m.	41_4	32 21.0	117 24.0	130	9.20	.....	.....	.....	.....
4800	8:55 a.m.	41_4	32 21.0	117 24.0	0	15.8	2695	2562	2469	33.54
4801	9:24 a.m.	41_4	32 21.0	117 24.0	175	9.19	.....	.....	.....	.....
4802	9:35 a.m.	41_4	32 21.0	117 24.0	0	15.9	2690	2557	2462	33.48
4803	9:45 a.m.	41_4	32 21.3	117 23.7	0	15.8	2688	2555	2462	33.46
4804	10:00 a.m.	41_4	32 22.3	117 22.7	0	15.8	2689	2556	2463	33.47
4805	10:15 a.m.	40_5	32 23.2	117 21.7	0	16.1	2690	2557	2457	33.48
4806	10:30 a.m.	40_5	32 24.1	117 20.7	0	15.8	2691	2558	2465	33.49
4807	10:45 a.m.	40_5	32 25.0	117 19.7	0	15.5	2689	2556	2470	33.47
4808	11:00 a.m.	40_5	32 26.0	117 18.7	0	15.3	2697	2564	2482	33.57
4809	11:17 a.m.	40_5	32 26.9	117 18.1	0	14.6	2689	2556	2489	33.47
4810	11:12 p.m.	39_5	32 23.0	117 14.3	0	15.2	2695	2562	2483	33.54
4811	11:29 p.m.	39_4	32 22.4	117 15.7	0	15.3	2690	2557	2475	33.48
4812	11:45 p.m.	40_4	32 22.0	117 17.9	0	15.9	2687	2554	2459	33.44
4813	11:59 p.m.	40_4	32 21.6	117 21.3	0	15.8	2691	2558	2465	33.49
			May 11, 1914							
4814	12:31 a.m.	41_4	32 21.0	117 24.0	0	15.8	2687	2554	2461	33.44
4815	12:40 a.m.	41_4	From 12:27 to 4:02		9	15.86	2685	2552	2458	33.41
4816	12:45 a.m.	41_4	a.m. the boat		9	15.84	2684	2551	2457	33.40
4817	12:54 a.m.	41_4	steamed from the		9	.....	2685	2552	.....	33.41
4818	12:59 a.m.	41_4	above position		9	15.85	2683	2550	2456	33.39
4819	1:07 a.m.	41_4	to the following		18	.....	2684	2551	.....	33.40
4820	2:25 a.m.	41_4	position		46	10.50	.....	.....	.....	.....
4821	2:34 a.m.	41_4			0	15.8	2688	2555	2462	33.46
4822	2:41 a.m.	41_4			90	9.50	.....	.....	.....	.....
4823	2:57 a.m.	41_4			135	9.08	.....	.....	.....	.....
4824	3:13 a.m.	41_4			12	13.96	2684	2551	2499	33.40
4825	3:18 a.m.	41_4			185	8.79	.....	.....	.....	.....
4826	3:30 a.m.	41_4			0	15.8	2688	2555	2462	33.46
4827	3:39 a.m.	41_4			27	.....	2685	2552	.....	33.41
4828	3:44 a.m.	41_4			27	11.26	2688	2555	2554	33.46
4829	3:53 a.m.	41_4			30	11.07	2690	2557	2560	33.48
4830	3:58 a.m.	41_4	32° 18′.5	117° 27′.2	30	11.01	.....	.....	.....	.....
4831	4:07 a.m.	41_4	32 18.7	117 26.6	0	15.8	2690	2557	2464	33.48
4832	4:22 a.m.	41_4	32 19.4	117 24.7	0	15.7	2688	2555	2465	33.46
4833	4:37 a.m.	41_4	32 20.1	117 22.6	0	15.8	2688	2555	2462	33.46
4834	4:52 a.m.	40_4	32 20.9	117 20.4	0	15.9	2686	2553	2456	33.42
4835	5:07 a.m.	40_4	32 21.6	117 18.4	0	15.8	2690	2557	2464	33.48
4836	5:22 a.m.	39_4	32 22.3	117 16.3	0	14.2	2694	2561	2503	33.53
4837	5:37 a.m.	39_5	32 23.0	117 14.2	0	14.5	2691	2558	2493	33.49
4838	11:40 p.m.	39_5	32 23.0	117 14.2	0	14.7	2698	2565	2494	33.58
4839	11:59 p.m.	39_5	32 22.8	117 17.2	0	16.4	2688	2555	2448	33.46
			May 12, 1914							
4840	12:12 a.m.	40_5	32 22.7	117 19.2	0	16.2	2684	2551	2448	33.40
4841	12:20 a.m.	40_5	From 12:12 to 4:10		0	16.2	2686	2553	2450	33.42
4842	12:30 a.m.	40_5	a.m. the boat		9	15.95	2682	2550	2452	33.38
4843	12:35 a.m.	40_5	steamed from the		9	16.14	2688	2555	2454	33.46
4844	12:43 a.m.	40_5	above position		8	16.15	.....	.....	.....	.....
4845	12:55 a.m.	40_4	to the following		17	12.74	2682	2550	2519	33.38
4846	1:00 a.m.	40_4	position		17	.....	2682	2550	.....	33.38

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° / 4°.0	Specific gravity: 17°.5 / 17°.5	Specific gravity: t° / 4°.0	Salinity S ‰
			May 12, 1914							
4847	1:06 a.m.	40_4			17	12.62	2681	2549	2521	33.37
4848	1:11 a.m.	40_4			17	.....	2680	2550	.....	33.38
4849	1:19 a.m.	40_4			35	10.49	2691	2558	2570	33.49
4850	1:24 a.m.	40_4			35	10.40	.....	.....	.....	.....
4851	1:37 a.m.	40_4			45	10.14	2699	2565	2585	33.58
4852	1:50 a.m.	40_4			0	16.2	2685	2552	2449	33.41
4853	1:52 a.m.	40_4			46	10.09	.....	.....	.....	.....
4854	2:12 a.m.	40_4			86	9.28	.....	.....	.....	.....
4855	2:22 a.m.	40_4			60	10.04	2720	2586	2606	33.86
4856	2:27 a.m.	40_4			88	9.29	.....	.....	.....	.....
4857	2:44 a.m.	40_4			119	8.99	.....	.....	.....	.....
4858	3:00 a.m.	40_4			58	9.90	2718	2583	2607	33.82
4859	3:20 a.m.	40_4			172	8.59	.....	.....	.....	.....
4860	3:39 a.m.	40_4			172	8.88	.....	.....	.....	.....
4861	4:00 a.m.	40_4			0	16.0	2685	2552	2454	33.41
4862	4:04 a.m.	40_4			27	11.19	2691	2558	2558	33.49
4863	4:09 a.m.	40_4	32° 20′.6	117° 20′.2	27	11.16	2689	2556	2557	33.47
4864	4:38 a.m.	40_4	32 21.0	117 20.7	0	16.0	2685	2552	2454	33.41
4865	4:45 a.m.	40_4	32 20.6	117 21.7	0	16.0	2688	2555	2457	33.46
4866	5:00 a.m.	41_4	32 19.7	117 23.8	0	16.0	2687	2554	2456	33.44
4867	5:12 a.m.	41_4	32 19.1	117 25.4	0	15.8	2690	2557	2464	33.48
4868	5:30 a.m.	41_4	32 19.9	117 24.2	0	16.0	2684	2551	2453	33.40
4869	5:46 a.m.	41_4	32 21.2	117 22.6	0	16.0	2688	2555	2457	33.46
4870	6:00 a.m.	40_4	32 22.3	117 21.0	0	16.0	2686	2553	2455	33.42
4871	6:15 a.m.	40_5	32 23.6	117 19.2	0	16.5	2691	2558	2448	33.49
4872	6:26 a.m.	40_5	32 24.7	117 17.8	0	15.7	2690	2557	2467	33.48
4873	6:30 a.m.	39_5	32 25.0	117 17.4	0	15.6	2691	2558	2470	33.49
4874	6:35 a.m.	39_5	32 25.4	117 16.9	0	16.2	2686	2553	2450	33.42
4875	6:38 a.m.	39_5	32 25.8	117 16.9	0	16.1	2688	2555	2455	33.46
			June 5, 1914							
4876	11:30 a.m.	(39_{10})	32 51.9	117 15.5	0	17.7	2710	2576	2439	33.73
			June 11, 1914							
4877	4:00 p.m.	(39_{10})	32 51.9	117 15.5	0	18.9	2725	2590	2424	33.91
			June 12, 1914							
4878	4:00 p.m.	(39_{10})	32 51.9	117 15.5	0	19.0	2704	2571	2401	33.66
			June 15, 1914							
4879	11:59 a.m.	(39_{10})	32 51.9	117 15.5	0	18.5	2728	2593	2437	33.95
4880	4:00 p.m.	(39_{10})	32 51.9	117 15.5	0	19.0	2709	2575	2388	33.71
			June 19, 1914							
4881	5:00 p.m.	(39_{10})	32 51.9	117 15.5	0	20.7	2725	2590	2376	33.91
			June 22, 1914							
4882	5:00 p.m.	(39_{10})	32 51.9	117 15.5	0	20.9	2726	2591	2372	33.93
			June 30, 1914							
4883	5:15 p.m.	(39_{10})	32 51.9	117 15.5	0	21.9	2724	2589	2343	33.90
			November 29, 1914							
4884	11:00 a.m.	G	28 0	110 50	0	25.0	2827	2687	2349	35.17
4885	1:00 p.m.	G	27 50	110 50	0	23.8	2824	2684	2384	35.14
4886	5:00 p.m.	G	27 40	110 45	0	24.2	2824	2684	2372	35.14
			November 30, 1914							
4887	7:00 a.m.	G	27 30	110 45	0	24.6	2818	2678	2355	35.07
4888	2:00 p.m.	G	27 20	110 45	0	24.6	2826	2686	2363	35.16
			December 1, 1914							
4889	1:40 a.m.	G	27 2	110 20	0	23.6	.....	.....	.....	.....
			December 4, 1914							
4890	1:00 p.m.	G	27 0	110 22	0	24.2	2825	2685	2373	35.16
			December 5, 1914							
4891	6:00 a.m.	G	26 30	110 45	0	24.2	2828	2688	2376	35.19
4892	11:59 a.m.	G	26 10	111 0	0	24.4	2817	2677	2359	35.06
			December 11, 1914							
4893	4:00 p.m.	G	23 30	109 20	0	24.6	2825	2685	2362	35.16
4894	6:00 p.m.	G	23 20	109 20	0	24.8	2806	2667	2340	34.92
4895	8:00 p.m.	G	23 10	109 25	0	25.0	.....	.....	.....	.....
4896	10:00 p.m.	G	22 55	109 40	0	25.2	2786	2648	2305	34.67
4897	11:59 p.m.	G	22 45	109 50	0	25.0	2806	2667	2331	34.92

Table 1.—Ocean Data—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°.0	Specific gravity: 17°.5 S/17°.5	Specific gravity: t° S/4°.0	Salinity S ‰
			December 12, 1914							
4898	2:00 a.m.	—46[111]	22 45	110 8	0	25.0	2807	2668	2332	34.93
4899	8:00 a.m.	—43[105]	23 15	110 25	0	25.1	.....	.....	.....	.....
4900	11:00 a.m.	—42[103]	23 25	110 30	0	24.8	2792	2654	2324	34.74
4901	1:00 p.m.	(—39[99])	23 45	110 45	0	24.8	2796	2658	2328	34.79
			December 13, 1914							
4902	2:00 p.m.	—27[93]	24 15	111 45	0	22.2	2781	2643	2388	34.60
4903	6:00 p.m.	—24[89]	24 35	112 0	0	21.4	2781	2643	2410	34.60
			December 14, 1914							
4904	1:00 a.m.	—21[82]	25 10	112 15	0	21.8	2764	2627	2383	34.40
4905	7:00 a.m.	(—22)[76]	25 40	112 10	0	21.5	2761	2624	2388	34.36
4906	11:59 a.m.	(—21)[75]	25 45	112 15	0	21.4	2726	2591	2358	33.93
			December 15, 1914							
4907	11:59 a.m.	3[60]	27 0	114 15	0	19.2	2730	2595	2421	33.97
			December 16, 1914							
4908	11:59 a.m.	5[59]	27 6	114 25	0	19.2	2733	2597	2424	34.01
			December 18, 1914							
4909	8:00 a.m.	10[52]	27 40	114 50	0	19.2	2731	2596	2422	33.98
4910	11:59 a.m.	12[51]	27 45	115 2	0	18.8	2730	2595	2431	33.97
4911	2:20 p.m.	15[48]	28 0	115 15	0	17.7	2702	2568	2431	33.62
4912	5:30 p.m.	15[44]	28 20	115 14	0	17.4	2697	2564	2433	33.57
			December 19, 1914							
4913	2:00 p.m.	(15[31])	29 25	115 15	0	16.2	2684	2551	2458	33.40
			December 21, 1914							
4914	9:00 a.m.	(25)[18]	30 30	116 7	0	16.6	2681	2549	2438	33.37
4915	6:30 p.m.	(32[5])	31 35	116 40	0	15.8	2688	2555	2463	33.46
			December 22, 1914							
4916	11:00 a.m.	39_5	32 23	117 15	0	15.4	2678	2546	2462	33.33
			May 14, 1915							
4917	6:20 a.m.	40_4	32 21.0	117 19.7	0	15.6	2691	2558	2470	33.49
4918	6:35 a.m.	40_4	From 4:25 to 10:50		18	14.30	2676	2543	2484	33.30
4919	6:35 a.m.	40_4	a.m. the boat		92	9.30	.....	.....	.....	.....
4920	6:57 a.m.	40_4	drifted from the		0	15.6	2681	2549	2461	33.37
4921	7:12 a.m.	40_4	above position		18	14.22	2677	2544	2487	33.31
4922	7:12 a.m.	40_4	to the following		92	9.30	.....	.....	.....	.....
4923	7:33 a.m.	40_4	position		0	15.6	2680	2547	2460	33.35
4924	7:48 a.m.	41_4			18	14.30	2678	2546	2486	33.33
4925	7:48 a.m.	41_4			92	9.15	.....	.....	.....	.....
4926	8:10 a.m.	41_4			0	15.7	2681	2549	2459	33.37
4927	8:24 a.m.	41_4			18	14.30	2679	2546	2487	33.34
4928	8:24 a.m.	41_4			20	14.10	2679	2546	2491	33.34
4929	8:45 a.m.	41_3			0	15.85	2680	2547	2454	33.35
4930	8:58 a.m.	41_3			18	14.25	2677	2544	2486	33.31
4931	8:58 a.m.	41_3			92	9.50	2709	2575	2606	33.71
4932	9:15 a.m.	41_3			0	15.8	2681	2549	2456	33.37
4933	9:30 a.m.	41_3			18	14.45	2679	2546	2483	33.34
4934	9:30 a.m.	41_3			92	9.50	2707	2573	2604	33.69
4935	9:45 a.m.	41_3			0	15.9	2681	2549	2454	33.37
4936	10:00 a.m.	41_3			18	14.45	2675	2543	2479	33.30
4937	10:00 a.m.	41_3			24	12.20	2678	2546	2528	33.33
4938	10:16 a.m.	41_3			0	16.0	2681	2549	2452	33.37
4939	10:31 a.m.	41_3			18	13.85	.....	.....	.....	.....
4940	10:31 a.m.	41_3	32° 15′.7	117° 25′.7	92	9.85	2708	2574	2599	33.70
4941	12:25 p.m.	40_5	32 23.0	117 19.4	0	16.2	2682	2549	2448	33.38
4942	12:40 p.m.	40_4	From 12:10 to 1:30		18	14.95	2681	2549	2475	33.37
4943	12:40 p.m.	40_4	p.m. boat drifted		92	9.50	2714	2579	2611	33.77
4944	12:55 p.m.	40_4	from the above to		0	16.15	2680	2547	2447	33.35
4945	1:10 p.m.	40_4	following position		18	14.70	2676	2543	2475	33.30
4946	1:10 p.m.	40_4	32° 21′.1	117° 19′.3	92	9.45	2717	2582	2614	33.81
			May 15, 1915							
4947	5:32 a.m.	40_4	32 22.4	117 21.2	0	16.3	2679	2546	2443	33.34
4948	5:47 a.m.	40_4	From 5:20 to 9:25		18	15.40	2676	2543	2460	33.30
4949	5:47 a.m.	40_4	a.m. the boat		92	9.40	2707	2573	2605	33.69
4950	6:08 a.m.	40_4	drifted from the		0	16.3	2680	2547	2444	33.35

TABLE 1.—OCEAN DATA—(*Continued*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: 0° S/4°.0	Specific gravity: 17°.5 S/17°.5	Specific gravity: t° S/4°.0	Salinity S ‰
			May 15, 1914							
4951	6:23 a.m.	40_4	above position		18	15.45	2674	2542	2457	33.28
4952	6:23 a.m.	40_4	to the following		92	9.40	2707	2573	2605	33.69
4953	6:36 a.m.	40_4	position		0	16.3	2681	2549	2445	33.37
4954	6:51 a.m.	40_4			18	15.30	2677	2544	2463	33.31
4955	7:20 a.m.	40_4			0	16.3	2678	2546	2442	33.33
4956	7:35 a.m.	40_3			18	15.30	2676	2543	2462	33.30
4957	7:35 a.m.	40_3			92	9.25	2701	2567	2602	33.61
4958	7:53 a.m.	40_3			0	16.3	2681	2549	2445	33.37
4959	8:08 a.m.	40_3			18	15.40	2677	2544	2461	33.31
4960	8:08 a.m.	40_3			92	9.30	2703	2569	2603	33.64
4961	8:25 a.m.	40_3			0	16.4	2681	2549	2443	33.37
4962	8:40 a.m.	40_3			18	15.30	2674	2542	2460	33.28
4963	8:40 a.m.	40_3			92	9.50	2703	2569	2600	33.64
4964	8:55 a.m.	40_3			0	16.4	2678	2546	2440	33.33
4965	9:10 a.m.	40_3	32° 15'.0	117° 19'.0	73	10.20	2695	2561	2580	33.54 ?
4966	10:37 a.m.	40_5	32 23.0	117 19.1	0	16.75	2680	2547	2433	33.35
4967	10:52 a.m.	40_5	From 10:30 a.m. to		18	15.25	2677	2544	2465	33.31
4968	11:07 a.m.	40_4	1:15 p.m. the boat		0	16.75	2681	2549	2435	33.37
4969	11:22 a.m.	40_4	drifted from the		18	15.05	2678	2546	2470	33.33
4970	11:43 a.m.	40_4	above to the fol-		0	16.7	2677	2544	2542	33.31
4971	11:58 a.m.	40_4	lowing position		42	11.60	2690	2557	2550	33.48
4972	11:58 a.m.	40_4			92	9.40	2714	2579	2612	33.77
4973	12:35 p.m.	40_4			0	16.7	2680	2547	2434	33.35
4974	12:50 p.m.	40_4			18	15.35	2676	2543	2461	33.30
4975	1:08 p.m.	40_4			0	16.8	2679	2546	2431	33.34
4976	1:23 p.m.	40_4			18	15.00	2676	2543	2469	33.30
4977	1:23 p.m.	40_4	32° 19'.2	117° 18'.8	92	9.40	2708	2574	2606	33.70
			May 16, 1915							
4978	5:27 a.m.	40_4	32 20.0	117 20.0	0	17.1	2682	2549	2428	33.38
4979	5:42 a.m.	40_4	From 5:15 to 11:45		18	15.35	2676	2543	2461	33.30
4980	5:42 a.m.	40_4	a.m. the boat		92	9.65	.....	.....	.....	.....
4981	6:00 a.m.	40_4	drifted from the		0	17.05	2678	2546	2425	33.33
4982	6:15 a.m.	40_4	above to the fol-		18	15.55	2676	2543	2457	33.30
4983	6:15 a.m.	40_4	lowing position		84	9.75	2710	2576	2603	33.73
4984	6:27 a.m.	40_4			0	17.0	2678	2546	2426	33.33
4985	6:42 a.m.	40_4			18	15.55	2675	2543	2456	33.30
4986	6:42 a.m.	40_4			92	9.50	2720	2586	2616	33.86
4987	6:56 a.m.	40_4			0	17.05	2676	2543	2423	33.30
4988	7:10 a.m.	40_4			18	15.55	2676	2543	2457	33.30
4989	7:10 a.m.	40_4			92	9.60	2715	2580	2610	33.78
4990	7:31 a.m.	40_4			0	17.1	2679	2546	2443	33.34
4991	7:46 a.m.	40_4			18	15.75	.....	.....	.....	.....
4992	7:46 a.m.	40_4			92	9.70	2712	2578	2605	33.75
4993	7:59 a.m.	40_4			0	17.1	2678	2546	2424	33.33
4994	8:14 a.m.	40_4			18	15.75	2678	2546	2455	33.33
4995	8:14 a.m.	40_4			92	.....	2719	2584	.....	33.84
4996	8:28 a.m.	40_4			0	16.9	2677	2544	2427	33.31
4997	8:43 a.m.	40_4			18	15.45	2675	2543	2458	33.30
4998	8:43 a.m.	40_4			92	9.65	2716	2582	2610	33.80
4999	8:56 a.m.	40_4			0	16.9	2678	2546	2428	33.33
5000	9:11 a.m.	40_4			18	15.30	2676	2543	2462	33.30
5001	9:11 a.m.	40_4			92	9.40	2720	2586	2617	33.86
5002	9:24 a.m.	40_4			0	16.9	2679	2546	2428	33.34
5003	9:39 a.m.	40_4			18	15.25	2677	2544	2465	33.31
5004	9:39 a.m.	40_4			92	9.55	.....	.....	.....	.....
5005	9:52 a.m.	40_4			0	17.0	2678	2546	2426	33.33
5006	10:07 a.m.	40_4			18	15.30	2676	2543	2462	33.30
5007	10:07 a.m.	40_4			92	9.60	2715	2580	2610	33.78
5008	10:17 a.m.	40_4			0	16.9	2678	2546	2428	33.33
5009	10:32 a.m.	40_4			18	15.30	2679	2546	2465	33.34
5010	10:32 a.m.	40_4			92	9.80	2717	2582	2609	33.81

Table 1.—Ocean Data—(*Concluded*)

Water sample number	Time of day	Section	Position: North latitude	Position: West longitude	Depth in meters	Temperature in centigrade	Specific gravity: $S\frac{0°}{4°.0}$	Specific gravity: $S\frac{17°.5}{17°.5}$	Specific gravity: $S\frac{t°}{4°.0}$	Salinity S ‰
			May 16, 1915							
5011	10:42 a.m.	40_4			0	16.9	2678	2546	2428	33.33
5012	10:57 a.m.	40_4			18	15.25	2676	2543	2463	33.30
5013	10:57 a.m.	40_4			92	9.65	2721	2586	2614	33.86
5014	11:08 a.m.	40_4			0	16.9	2677	2544	2428	33.31
5015	11:23 a.m.	04_4			18	15.35	2674	2542	2459	33.28
5016	11:23 a.m.	40_4			92	9.75	2719	2584	2611	33.84
5017	11:33 a.m.	40_4			0	16.9	2680	2547	2430	33.35
5018	11:48 a.m.	40_4			22	15.05	2678	2546	2456	33.33
5019	11:48 a.m.	40_4	32° 20′.3	117° 19′.0	92	9.65	2721	2586	2614	33.86

EXPLANATION OF TABLE 2

The series of surface temperature and salinity observations begun in August, 1912 (see former report, 1915, p. 119) for the purpose of determining the relation between the seasonal variation in San Diego Bay and in the ocean were continued until October, 1914. Since 1912, all the bay observations have been made in Glorietta Bight, and all the corresponding ocean observations from Coronado Pier.

First column.—Water-sample numbers entered in chronological order irrespective of position.

Second column.—Date.

Third column.— Time when the sample was collected entered to the nearest minute.

Fourth column.—Position denoted by the symbols *C.P.* and *G.B.*, the former referring to Coronado Pier—32° 40′.4 N and 117° 10′.7 W, and the latter to Glorietta Bight—32° 40′.6 N and 117° 10′.0 W.

Fifth column.—Tide; falling, rising, high, and low tides being indicated by *F*, *R*, *H*, and *L*.

Sixth column.—Temperature *in situ;* for accuracy see explanation to table 1, page 218.

Seventh, eighth, and ninth columns.—Specific gravity of the sample under atmospheric pressure, the 1.0 being omitted; see table 1, page 219, for explanation of symbols.

Tenth column.—Salinity *per mille* determined by the "sinker method" as described in our former report (1915, pp. 32–37). The reason for occasional omissions of salinity and specific gravity entries is stated in the explanation of table 1, page 219.

TABLE 2.—DATA RELATIVE TO SAN DIEGO BAY

Water sample number	Date	Time of day	Position	Tide	Temperature in centigrade	Specific gravity $S\frac{0°}{4°0}$	Specific gravity $S\frac{17°5}{17°5}$	Specific gravity $S\frac{t°}{4°0}$	Salinity S ‰
	1913								
B 497	Jan. 11	10:00 a.m.	C.P.	H	.....	2693	2560	.....	33.52
B 498	Jan. 11	10:30 a.m.	G.B.	H	.....	2748	2612	.....	34.20
B 499	Jan. 14	1:00 p.m.	G.B.	H	.....	2730	2595	.....	33.97
B 500	Jan. 14	1:20 p.m.	C.P.	H	12°0	2700	2567	2552	33.60
B 501	Jan. 18	3:00 p.m.	C.P.	R	13.5	2691	2558	2514	33.49
B 502	Jan. 18	3:15 p.m.	G.B.	R	.....	2715	2581	.....	33.79
B 503	Feb. 9	1:00 p.m.	C.P.	F	13.0	2706	2573	2539	33.68
B 504	Feb. 9	1:20 p.m.	G.B.	F	13.8	2707	2574	2524	33.69
B 505	Feb. 23	12:01 p.m.	C.P.	F	13.6	2690	2557	2509	33.48
B 506	Feb. 23	12:20 p.m.	G.B.	F	13.2	2712	2578	2541	33.75
B 507	Mar. 2	3:00 p.m.	C.P.	R	15.5	2700	2567	2481	33.60
B 508	Mar. 2	3:15 p.m.	C.P.	R	14.4	2701	2568	2505	33.61
B 509	Mar. 10	9:45 a.m.	C.P.	H	14.4	2690	2557	2494	33.48
B 510	Mar. 10	10:00 a.m.	G.B.	H	16.7	2711	2577	2464	33.74
B 511	Mar. 16	2:00 p.m.	C.P.	R	14.2	2714	2580	2523	33.78
B 512	Mar. 16	2:15 p.m.	G.B.	R	15.6	2710	2576	2489	33.73
B 513	Mar. 23	9:40 a.m.	C.P.	H	12.6	2708	2574	2548	33.70
B 514	Mar. 23	10:00 a.m.	G.B.	H	14.8	2742	2607	2536	34.12
B 515	Mar. 31	4:00 p.m.	C.P.	R	14.4	2712	2578	2516	33.75
B 516	Mar. 31	4:15 p.m.	G.B.	R	16.7	2762	2626	2512	34.37
B 517	Apr. 20	12:30 p.m.	C.P.	F	17.3	2713	2579	2452	33.76
B 518	Apr. 20	12:45 p.m.	G.B.	F	20.1	2813	2674	2475	35.01
B 519	Apr. 27	12:01 p.m.	C.P.	R	17.2	2711	2577	2452	33.74
B 520	Apr. 27	12:15 p.m.	G.B.	R	19.8	2784	2646	2457	34.65
B 521	May 4	9:00 a.m.	C.P.	F	17.0	2712	2578	2458	33.75
B 522	May 4	9:15 a.m.	G.B.	F	20.6	2815	2676	2464	35.03
B 523	May 11	12:01 p.m.	C.P.	R	16.4	2712	2578	2472	33.75
B 524	May 11	12:15 p.m.	G.B.	R	23.2	2834	2695	2411	35.26
B 525	May 19	12:01 p.m.	C.P.	F	17.2	2715	2581	2456	33.79
B 526	May 19	12:15 p.m.	G.B.	F	21.2	2876	2734	2509	35.79
B 527	May 26	12:01 p.m.	C.P.	R	17.0	2718	2584	2464	33.83
B 528	May 26	12:15 p.m.	G.B.	R	21.4	2786	2648	2415	34.67
B 529	June 1	9:20 a.m.	C.P.	F	16.8	2714	2580	2464	33.78
B 530	June 1	9:30 a.m.	G.B.	F	21.5	2843	2704	2467	35.37
B 531	June 6	9:30 a.m.	C.P.	R	16.5	2715	2581	2472	33.79
B 532	June 6	9:40 a.m.	G.B.	R	20.6	2857	2716	2506	35.55
B 533	June 23	11:00 a.m.	G.B.	R	21.5	2873	2731	2497	35.75
B 534	June 23	11:15 p.m.	C.P.	R	.....	2720	2586	.....	33.85
B 535	Nov. 24	4:30 p.m.	C.P.	R	16.8	2704	2571	2454	33.66
B 536	Nov. 24	4:45 p.m.	G.B.	R	16.9	2758	2622	2504	34.33
B 537	Nov. 30	2:45 p.m.	C.P.	F	15.4	2712	2578	2495	33.75
B 538	Nov. 30	3:00 p.m.	G.B.	F	15.4	2761	2624	2541	34.36
B 539	Dec. 8	2:00 p.m.	C.P.	R	14.8	2692	2559	2488	33.50
B 540	Dec. 8	2:15 p.m.	G.B.	R	15.0	2703	2569	2495	33.64
B 541	Dec. 14	12:30 p.m.	C.P.	F	14.2	2719	2584	2526	33.84
B 542	Dec. 14	12:45 p.m.	G.B.	F	14.8	2756	2620	2549	34.30
B 543	Dec. 21	12:30 p.m.	C.P.	R	14.5	2698	2565	2500	33.58
B 544	Dec. 21	1:00 p.m.	G.B.	R	14.0	2730	2595	2541	33.97
	1914								
B 545	Jan. 4	12:30 p.m.	C.P.	R	13.2	2698	2565	2527	33.58
B 546	Jan. 4	1:00 p.m.	G.B.	R	14.0	2724	2590	2535	33.90
B 547	Jan. 11	6:00 p.m.	G.B.	R	13.8	2714	2580	2531	33.78
B 548	Jan. 11	6:15 p.m.	C.P.	R	12.6	2701	2567	2541	33.61
B 549	Jan. 19	2:00 p.m.	C.P.	R	14.6	2696	2562	2496	33.55
B 550	Jan. 19	2:20 p.m.	G.B.	R	15.2	2719	2584	2505	33.84
B 551	Feb. 2	3:00 p.m.	C.P.	F	14.4	2693	2560	2497	33.51
B 552	Feb. 2	3:30 p.m.	G.B.	F	14.6	.....	.....	.....	.....
B 553	Feb. 8	6:00 p.m.	C.P.	R	14.2	2696	2562	2505	33.55
B 554	Feb. 8	6:15 p.m.	G.B.	R	15.0	2708	2574	2500	33.70
B 555	Feb. 14	3:00 p.m.	G.B.	L	15.2	2686	2553	2475	33.42

Table 2.—Data Relative to San Diego Bay—(*Concluded*)

Water sample number	Date 1914	Time of day	Position	Tide	Temperature in centigrade	Specific gravity $S\frac{0°}{4°.0}$	Specific gravity $S\frac{17°.5}{17°.5}$	Specific gravity $S\frac{t°}{4°.0}$	Salinity S ‰
B 556	Feb. 14	3:30 p.m.	C.P.	L	14.4	2693	2560	2497	33.51
B 557	Feb. 21	10:30 a.m.	C.P.	F	15.0	2700	2566	2492	33.60
B 558	Feb. 21	10:45 a.m.	G.B.	F	16.2	2708	2574	2472	33.70
B 559	Mar. 1	8:30 a.m.	C.P.	R	14.8	2686	2533	2483	33.42
B 560	Mar. 1	8:45 a.m.	G.B.	R	16.8	2702	2568	2452	33.62
B 561	Mar. 8	9:30 a.m.	C.P.	F	15.0	2693	2560	2485	33.51
B 562	Mar. 8	9:45 a.m.	G.B.	F	17.6	2688	2555	2420	33.46
B 563	Mar. 16	10:00 a.m.	C.P.	R	16.0	2698	2565	2467	33.58
B 564	Mar. 16	10:15 a.m.	G.B.	R	18.2	2706	2572	2423	33.68
B 565	Mar. 22	9:40 a.m.	C.P.	F	16.4	2684	2551	2446	33.40
B 566	Mar. 22	10:00 a.m.	G.B.	F	18.6	2704	2571	2411	33.66
B 567	Mar. 30	11:30 a.m.	C.P.	H	16.8	2691	2558	2441	33.49
B 568	Mar. 30	11:45 a.m.	G.B.	H	18.0	2710	2576	2433	33.73
B 569	Apr. 4	2:30 p.m.	C.P.	R	16.6	2697	2564	2452	33.57
B 570	Apr. 4	2:45 p.m.	G.B.	R	18.4	2709	2575	2421	33.71
B 571	Apr. 14	3:15 p.m.	C.P.	F	14.0	2689	2556	2502	33.47
B 572	Apr. 14	3:30 p.m.	G.B.	F	19.6	2729	2594	2409	33.96
B 573	Apr. 17	6:30 a.m.	C.P.	F	17.2	.....	.....	.....	.....
B 574	May 3	6:30 a.m.	C.P.	F	16.6	2692	2559	2447	33.50
B 575	May 3	6:45 a.m.	G.B.	F	18.0	2688	2555	2410	33.46
B 576	June 14	10:20 a.m.	C.P.	....	18.4	2726	2591	2437	33.93
B 577	June 14	10:30 a.m.	G.B.	....	19.4	.....	.....	.....	.....
B 578	June 21	4:30 p.m.	G.B.	....	21.2	.....	.....	.....	.....
B 579	June 25	6:15 p.m.	G.B.	....	19.8	.....	.....	.....	.....
B 580	June 28	6:30 p.m.	C.P.	....	20.2	2729	2594	2394	33.96
B 581	July 5	3:15 p.m.	G.B.	....	23.0	.....	.....	.....	.....
B 582	July 19	10:45 a.m.	C.P.	....	14.0	2709	2575	2522	33.71
B 583	July 19	11:15 a.m.	G.B.	....	21.0	.....	.....	.....	.....
B 584	July 26	11:15 a.m.	C.P.	....	.....	2713	2579	.....	33.77
B 585	Aug. 3	7:30 a.m.	C.P.	....	12.1	2705	2571	2555	33.67
B 586	Aug. 3	7:45 a.m.	G.B.	....	22.0	.....	.....	.....	.....
B 587	Aug. 10	10:00 a.m.	C.P.	....	14.2	2719	2584	2526	33.84
B 588	Aug. 16	4:00 p.m.	C.P.	....	15.0	2719	2584	2509	33.84
B 589	Aug. 16	4:20 p.m.	G.B.	....	21.0	.....	.....	.....	.....
B 590	Sept. 7	12:01 p.m.	C.P.	....	18.2	2706	2572	2423	33.68
B 591	Sept. 27	12:01 p.m.	G.B.	....	20.0	.....	.....	.....	.....

EXPLANATION OF TABLE 3

This table includes the field data relative to all plankton collections made from 1913 to 1915 inclusive for quantitative investigations.

First column.—Numbers under which the collections are accessioned; they are arranged in chronological order irrespective of the nature of the haul. The letter *L* or *R* relates either to the left or right haul of the duplicate ones made with the "serial closing apparatus" (see p. 209).

Second column.—Apparatus used in making the collections; K.B. refers to the Kofoid water bottle (see p. 212); S.000 refers to the serial closing apparatus (see p. 209), the nets of which are equivalent in size and filtering capacity to the K.000; K.000, and all remaining symbols refer to nets of the mesh indicated, and having the dimensions given in Appendix 1, page 201 of our former (1915) report.

Third and fourth columns.—Time of day and duration of haul entered to the nearest minute.

Fifth column.—Section; for explanation see page 217.

Sixth and seventh columns.—Latitude and longitude entered to the nearest 0'.1 when the error was within 0'.5, and to the nearest minute when the error was larger; see explanation to table 1, page 218.

Eighth column.—Depth of haul entered to the nearest meter above and to the nearest five below 200 meters; for error see former report (1915, p. 20).

Ninth column.—Numbers indicating water samples taken in connection with haul (see table 1). Since 1912 water samples have frequently been taken at the beginning and end of each haul; when only one was obtained its entry in the left or right hand part of the column means that it was taken nearest the beginning or end of the haul.

Tenth column.—Miscellaneous remarks relative to hauls; unless otherwise stated the apparatus worked properly so far as known.

Table 3.—Plankton Field Data

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					February 15, 1913				
3598	000c	9:22 a.m.	20	40_4	32° 22′.4	117° 21′.2	0	3855, ...	
3599	12	9:22 a.m.	20	40_4	32 22.4	117 21.2	0	3855, ...	
3600	000c	9:55 a.m.	107	40_4	32 22.4	117 21.2	0	3856, 3857	
3601	12	9:55 a.m.	107	40_4	From 9:55 a.m. to		0	3856, 3857	
3602	000c	11:55 a.m.	10	40_4	2:25 p.m. the boat		0	3858, ...	
3603	12	11:55 a.m.	10	40_4	drifted from the		0	3858, ...	
3604	000c	12:12 p.m.	38	40_4	above position		0	.....	
3605	12	12:12 p.m.	38	40_4	to the following		0	.....	
3606	000c	1:00 p.m.	70	$40_{3.5}$	position		0	3875, ...	
3607	12	1:00 p.m.	70	$40_{3.5}$	32° 16′.7	117° 19′.0	0	3875, ...	
					April 16, 1913				
3608	000c	6:20 a.m.	20	40_4	32 22.4	117 21.2	0	4032, ...	Position throughout
3609	12	6:20 a.m.	20	40_4	32 22.4	117 21.2	0	4032, ...	day maintained by
3610	000c	7:15 a.m.	31	40_4			0	4033, ...	"steam" within ¼
3611	12	7:15 a.m.	31	40_4	32 22.4	117 21.2	0	4033, ...	mile of that entered
3612	000c	8:00 a.m.	73	40_4	32 22.4	117 21.2	0	4034, 4037	
3613	12	8:00 a.m.	73	40_4	32 22.4	117 21.2	0	4034, 4037	
3614	K.000	8:19 a.m.	10	40_4	32 22.4	117 21.2	500	4035, 4036	
3615	K.000	9:04 a.m.	9	40_4	32 22.4	117 21.2	400	4038, 4039	
3616	12	9:42 a.m.	92	40_4	32 22.4	117 21.2	0	4040, 4045	
3617	K.000	9:48 a.m.	9	40_4	32 22.4	117 21.2	300	4041, ...	
3618	K.000	10:17 a.m.	8	40_4	32 22.4	117 21.2	200	4043, ...	
3619	K.000	10:40 a.m.	8	40_4	32 22.4	117 21.2	150	.....	
3620	K.000	10:59 a.m.	8	40_4	32 22.4	117 21.2	125	4046, ...	
3621	K.000	11:25 a.m.	6	40_4	32 22.4	117 21.2	100	4047, ...	
3622	000c	11:26 a.m.	40	40_4	32 22.4	117 21.2	0	4048, 4052	
3623	12	11:26 a.m.	40	40_4	32 22.4	117 21.2	0	4048, 4052	
3624	K.000	11:41 a.m.	6	40_4	32 22.4	117 21.2	75	4049, 4050	
3625	K.000	11:59 a.m.	6	40_4	32 22.4	117 21.2	60	4051, 4053	
3626	000c	12:44 p.m.	61	40_4	32 22.4	117 21.2	0	4055, 4076	
3627	12	12:44 p.m.	61	40_4	32 22.4	117 21.2	0	4055, 4076	
3628	K.000	12:45 p.m.	7	40_4	32 22.4	117 21.2	50	4054, 4056	
					April 17, 1913				
3629	K.000	5:45 a.m.	6	40_4	32 22.4	117 21.2	5	4077, 4080	See also 4079
3630	000c	5:56 a.m.	58	40_4	From 5:48 to 8:50		0	4078, 4086	Hauls 3629 to 3641
3631	12	5:56 a.m.	58	40_4	a.m. the boat		0	4078, 4086	were made while
3632	K.000	6:10 a.m.	6	40_4	drifted from the		7	4081, 4082	steaming slowly
3633	K.000	6:22 a.m.	6	40_4	above position		10	4083, 4084	against the drift
3634	K.000	6:33 a.m.	7	40_4	to the following		12	4085, 4087	
3635	K.000	6:45 a.m.	7	40_4			15	4088, ...	
3636	K.000	7:18 a.m.	7	40_5			17	4092, ...	
3637	000c	7:22 a.m.	78	40_5			0	4091, 4099	See also 4094
3638	12	7:22 a.m.	78	40_5			0	4091, 4099	
3639	K.000	7:32 a.m.	6	40_5			20	4093, ...	
3640	K.000	8:17 a.m.	6	40_5	32° 22′.6	117° 22′.1	25	4095, 4096	
3641	K.000	8:28 a.m.	6	40_5	position		30	4097, 4098	
					August 7, 1913				
3642	000c	10:56 a.m.	44	62_{24}	34 2.2	119 11.6	4	4316, ...	Haul 3642 ended at
3643	000c	1:15 p.m.	77	64_{24}	33 58.4	119 19.5	0	4327, 4345	34° 1′.6 N and
3644	000c	4:03 p.m.	27	66_{23}	33 55.5	119 29.0	0	4346, 4347	119° 10′.5 W
					August 8, 1913				
3645	000c	9:55 a.m.	45	63_{19}	33 35.0	119 16.0	0	4376, 4389	
3646	000c	1:37 p.m.	67	59_{22}	33 52.0	118 57.5	0	4405, ...	Haul 3646 ended at
3647	000c	7:00 p.m.	75	(57_{24})	34 0.8	118 46.4	4	4424, ...	33° 50′.0 N and
					August 9, 1913				
3648	000c	7:27 a.m.	56	(58_{24})	33 57.7	118 51.0	4	4451, ...	118° 55′.0 W
3649	000c	9:05 a.m.	67	58_{23}	33 56.5	118 52.0	0	4473, ...	
					August 10, 1913				
3650	000c	7:55 a.m.	20	(53_{21})	33 44.5	118 26.2	0	4519, ...	Haul 3650 made under steam

TABLE 3.—PLANKTON FIELD DATA—(*Continued*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					September 12, 1913				
3651	K.B.	3:15 p.m.	....	40_4	32 22.4	117 21.2	1	4609, ...	All K.B. hauls from
3652	K.B.	3:35 p.m.	....	40_4	From 3:15 to 4:48		5	4611, ...	3651 to 3838 are
3653	K.B.	3:42 p.m.	....	40_4	p.m. boat drifted		9	.....	probably defective,
3654	K.B.	3:50 p.m.	....	40_4	from above to		18	.....	the bottle not
3655	K.B.	3:58 p.m.	....	40_4	following position		27	.....	closing properly
3656	K.B.	4:08 p.m.	....	40_4			37	.....	
3657	K.B.	4:16 p.m.	....	40_4			46	.....	
3658	K.B.	4:25 p.m.	....	40_4	32° 20.5	117° 19.7	55	.....	
3659	K.B.	6:02 p.m.	....	40_4	32 22.4	117 21.2	73	.....	
3660	K.B.	6:10 p.m.	....	40_4	From 5:35 to 8:00		92	.....	
3661	K.B.	6:25 p.m.	....	40_4	pm. boat drifted		110	.....	
3662	K.B.	6:42 p.m.	....	40_4	from above to		147	.....	
3663	K.B.	7:00 p.m.	....	40_4	following position		185	.....	
3664	K.B.	7:20 p.m.	....	40_4			230	.....	
3665	K.B.	7:40 p.m.	....	40_4	32° 20.0	117° 19.1	275	.....	
3666	K.B.	8:50 p.m.	....	40_4	32 22.4	117 21.2	365	.....	
3667	K.B.	9:05 p.m.	....	40_4	32 22.2	117 20.9	550	.....	
3668	K.B.	9:30 p.m.	....	40_4	32 21.9	117 20.6	735	.....	
					September 13, 1913				
3669	K.B.	6:20 p.m.	....	40_4	32 22.4	117 21.2	1	4621, ...	
3670	K.B.	6:30 p.m.	....	40_4	From 6:15 to 8:12		5	4622, ...	
3671	K.B.	6:42 p.m.	....	40_4	pm. boat drifted		9	.....	
3672	K.B.	6:55 p.m.	....	40_4	from above to		18	.....	
3673	K.B.	7:10 p.m.	....	40_4	following position		27	.....	
3674	K.B.	7:20 p.m.	....	40_4			37	.....	
3675	K.B.	7:45 p.m.	....	40_4	32° 21.2	117° 19.1	46	.....	
					September 17, 1913				
3676	K.B.	6:00 p.m.	....	$40_{4.5}$	32 22.4	117 21.2	1	4626, ...	
3677	K.B.	6:06 p.m.	....	40_5	From 5:50 to 8:05		5	4627, ...	
3678	K.B.	6:12 p.m.	....	40_5	p.m. the boat		9	.....	
3679	K.B.	6:18 p.m.	....	40_5	drifted from the		18	.....	
3680	K.B.	6:25 p.m.	....	40_5	above position		27	.....	
3681	K.B.	6:35 p.m.	....	40_5	to the following		37	.....	
3682	K.B.	6:42 p.m.	....	40_5	position		46	.....	
3683	K.B.	6:48 p.m.	....	40_5			55	.....	
3684	K.B.	6:58 p.m.	....	40_5			73	.....	
3685	K.B.	7:06 p.m.	....	40_5			92	.....	
3686	K.B.	7:15 p.m.	....	40_5			110	.....	
3687	K.B.	7:23 p.m.	....	40_5			147	.....	
3688	K.B.	7:32 p.m.	....	40_5			185	.....	
3689	K.B.	7:44 p.m.	....	40_5			230	.....	
3690	K.B.	7:52 p.m.	....	40_5	32° 23.9	117° 21.4	275	.....	
3691	K.B.	8:38 p.m.	....	40_4	32 22.4	117 21.2	365	.....	
3692	K.B.	8:57 p.m.	....	40_4	32 22.4	117 21.2	460	.....	
3693	K.B.	9:12 p.m.	....	40_4	32 22.4	117 21.2	550	.....	
3694	K.B.	9:32 p.m.	....	40_4	32 22.4	117 21.2	735	.....	
3695	K.B.	9:56 p.m.	....	40_4	32 22.4	117 21.2	915	.....	
					September 18, 1913				
3696	K.B.	9:18 p.m.	....	40_4	32 22.4	117 21.2	1	4633, ...	
3697	K.B.	9:24 p.m.	....	40_4	From 9:04 p.m. to		5	4634, ...	
3698	K.B.	9:36 p.m.	....	40_4	1:46 a.m. the boat		9	.....	
3699	K.B.	9:42 p.m.	....	40_4	drifted from the		18	.....	
3700	K.B.	9:48 p.m.	....	40_4	above position		27	.....	
3701	K.B.	9:54 p.m.	....	40_4	to the following		37	.....	
3702	K.B.	10:02 p.m.	....	40_4	position		46	.....	
3703	K.B.	10:08 p.m.	....	40_4			55	.....	
3704	K.B.	10:15 p.m.	....	40_4			73	.....	
3705	K.B.	10:34 p.m.	....	40_4			92	.....	
3706	K.B.	10:42 p.m.	....	40_4			110	.....	
3707	K.B.	10:55 p.m.	....	40_4			147	.....	
3708	K.B.	11:12 p.m.	....	40_4			185	.....	
3709	K.B.	11:27 p.m.	....	40_4			230	.....	

Table 3.—Plankton Field Data—(*Continued*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					September 18, 1913				
3710	K.B.	11:34 p.m.	....	40_4			275	.....	
3711	K.B.	11:47 p.m.	....	40_4			365	.....	
					September 19, 1913				
3712	K.B.	12:04 a.m.	....	40_4			460	.....	
3713	K.B.	12:27 a.m.	....	40_4			550	.....	
3714	K.B.	12:42 a.m.	....	40_4			735	.....	
3715	K.B.	1:08 a.m.	....	40_4	32° 21′.3	117° 21′.9	915	.....	
					September 20, 1913				
3716	K.B.	12:15 a.m.	....	40_4	32 22.4	117 21.2	1	4642, ...	
3717	K.B.	12:25 a.m.	....	40_4	From 12:12 to 2:54		5	4643, ...	
3718	K.B.	12:35 a.m.	....	40_4	a.m. the boat		9	.....	
3719	K.B.	12:42 a.m.	....	40_4	drifted from the		18	.....	
3720	K.B.	1:15 a.m.	....	40_4	above position		27	.....	
3721	K.B.	1:27 a.m.	....	40_4	to the following		37	.....	
3722	K.B.	1:35 a.m.	....	40_4	position		46	.....	
3723	K.B.	1:47 a.m.	....	40_4			55	.....	
3724	K.B.	1:54 a.m.	....	40_4			73	.....	
3725	K.B.	2:04 a.m.	....	40_4			92	.....	
3726	K.B.	2:12 a.m.	....	40_4			110	.....	
3727	K.B.	2:22 a.m.	....	40.5_4			147	.....	
3728	K.B.	2:34 a.m.	....	41_4			185	.....	
3729	K.B.	2:45 a.m.	....	41_4	32° 22′.3	117° 22′.8	230	.....	
3730	K.B.	3:19 a.m.	....	40_4	32 22.4	117 21.2	275	.....	
3731	K.B.	3:35 a.m.	....	40_4	32 22.2	117 20.9	365	.....	
3732	K.B.	3:50 a.m.	....	40_4	32 22.0	117 20.7	460	.....	
3733	K.B.	4:10 a.m.	....	40_4	32 21.6	117 20.2	550	.....	
					September 21, 1913				
3734	K.B.	3:22 a.m.	....	40_4	32 22.4	117 21.2	1	4651, ...	
3735	K.B.	3:26 a.m.	....	40_4	From 3:20 to 5:34		5	4652, ...	
3736	K.B.	3:52 a.m.	....	40_4	a.m. the boat		9	.....	
3737	K.B.	4:13 a.m.	....	40_4	drifted from the		18	.....	
3738	K.B.	4:20 a.m.	....	40_4	above position		27	.....	
3739	K.B.	4:26 a.m.	....	40_4	to the following		37	.....	
3740	K.B.	4:41 a.m.	....	40_4	position		46	.....	
3741	K.B.	4:53 a.m.	....	40_4			55	.....	
3742	K.B.	5:01 a.m.	....	40_4			73	.....	
3743	K.B.	5:10 a.m.	....	40_4			92	.....	
3744	K.B.	5:17 a.m.	....	40_4			110	.....	
3745	K.B.	5:27 a.m.	....	40_4	32° 21′.9	117° 19′.8	147	.....	
3746	K.B.	6:00 a.m.	....	40_4	32 22.4	117 21.2	185	.....	
3747	K.B.	6:12 a.m.	....	40_4	From 5:56 to 8:58		230	.....	
3748	K.B.	6:24 a.m.	....	40_4	a.m. the boat		275	.....	
3749	K.B.	6:40 a.m.	....	40_4	drifted from the		365	.....	
3750	K.B.	6:57 a.m.	....	40_4	above position		460	.....	
3751	K.B.	7:17 a.m.	....	40_4	to the following		550	.....	
3752	K.B.	8:08 a.m.	....	40_4	position		735	.....	
3753	K.B.	8:36 a.m.	....	40_4	32° 21′.2	117° 20′.6	915	.....	
					September 22, 1913				
3754	K.B.	6:10 a.m.	....	40_4	32 22.4	117 21.2	1	4663, ...	
3755	K.B.	6:15 a.m.	....	40_4	From 6:07 to 7:57		5	4664, ...	
3756	K.B.	6:19 a.m.	....	40_4	a.m. the boat		9	.....	
3757	K.B.	6:25 a.m.	....	40_5	drifted from the		18	.....	
3758	K.B.	6:35 a.m.	....	40_5	above position		27	.....	
3759	K.B.	6:43 a.m.	....	40_5	to the following		37	.....	
3760	K.B.	6:49 a.m.	....	40_5	position		46	.....	
3761	K.B.	6:56 a.m.	....	40_5			55	.....	
3762	K.B.	7:04 a.m.	....	40_5			73	.....	
3763	K.B.	7:13 a.m.	....	40_5			92	.....	
3764	K.B.	7:20 a.m.	....	40_5			110	.....	
3765	K.B.	7:29 a.m.	....	40_5	32° 23′.2	117° 20′.2	147	.....	
3766	K.B.	8:13 a.m.	....	40_4	32 22.4	117 21.2	185	.....	
3767	K.B.	8:26 a.m.	....	40_4	32 22.4	117 21.2	230	.....	

TABLE 3.—PLANKTON FIELD DATA—(*Continued*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					September 22, 1913				
3768	K.B.	8:45 a.m.	....	40,	32 23.2	117 20.6	275	.....	
3769	K.B.	9:00 a.m.	..	40,	32 23.2	117 20.3	365	.....	
3770	K.B.	9:16 a.m.	...	40,	32 23.3	117 20.1	460	.....	
3771	K.B.	9:35 a.m.	....	40,	32 23.3	117 19.8	550	.....	
3772	K.B.	10:12 a.m.	....	40,	32 22.4	117 21.2	735	.....	
3773	K.B.	10:39 a.m.	....	40,	32 22.3	117 20.6	915	.....	
					September 23, 1913				
3774	K.B.	9:16 a.m.	....	40,	32 22.4	117 21.2	1	4674, ...	
3775	K.B.	9:22 a.m.	....	40,	32 22.4	117 21.2	5	4675, ...	
3776	K.B.	9:28 a.m.	....	40,	From 8:59 to 11:40		9	.....	
3777	K.B.	9:38 a.m.	....	40,	a.m. the boat		18	.....	
3778	K.B.	9:44 a.m.	....	40,	drifted from the		27	.....	
3779	K.B.	9:51 a.m.	....	40,	above position		37	.....	
3780	K.B.	10:00 a.m.	....	40,	to the following		46	.....	
3781	K.B.	10:07 a.m.	....	40,	position		55	.....	
3782	K.B.	10:16 a.m.	....	40,			73	.....	
3783	K.B.	10:25 a.m.	...	40,			92	.....	
3784	K.B.	10:37 a.m.	....	40,			110	.....	
3785	K.B.	10:46 a.m.	...	40,			147	.....	
3786	K.B.	10:56 a.m.		40,			185	.....	
3787	K.B.	11:22 a.m.		40,			230	.....	
3788	K.B.	11:32 a.m.	.	40,	32° 23.7	117° 20.5	275	.....	
3789	K.B.	12:25 p.m.	.	40,	32 22.4	117 21.2	365	.....	
3790	K.B.	12:58 p.m.	.	40,	From 11:58 a.m. to		460	.....	
3791	K.B.	1:15 p.m.	.	40,	2:01 p.m. boat		550	.....	
3792	K.B.	1:44 p.m.		40,	drifted from above		735	.....	
					to following position				
3793	K.B.	2:00 p.m.		40,	32° 22.1	117° 19.8	915	.....	
3794	K.B.	3:15 p.m.	....	40,	32 22.6	117 20.8	1100	.....	
					September 24, 1913				
3795	K.B.	12:19 p.m.	.	40,	32 22.4	117 21.2	1	4680, ...	
3796	K.B.	12:30 p.m.	...	40,	From 11:50 a.m. to		5	4681, ...	
3797	K.B.	12:36 p.m.	..	40,	1:20 p.m. the boat		9	.....	
3798	K.B.	12:46 p.m.		40,	drifted from above		18	.....	
3799	K.B.	12:53 p.m.	.	40,	to following position		27	.....	
3800	K.B.	1:00 p.m.	...	40,			37	.....	
3801	K.B.	1:13 p.m.	.	40,	32° 22.0	117° 20.1	46	.....	
3802	K.B.	1:41 p.m.	..	40,	32 22.4	117 21.2	55	.....	
3803	K.B.	1:49 p.m.	.	40,	From 1:38 to 3:00		73	.....	
3804	K.B.	1:57 p.m.	...	40,	p.m. the boat		92	.....	
3805	K.B.	2:06 p.m.	..	40,	drifted from the		110	.....	
3806	K.B.	2:15 p.m.		40,	above position		147	.....	
3807	K.B.	2:26 p.m.		40,	to the following		185		
3808	K.B.	2:40 p.m.	.	40,	position		230	.....	
3809	K.B.	2:52 p.m.		40,	32° 21.6	117° 20.9	275	.....	
3810	K.B.	3:30 p.m.		40,	32 22.4	117 21.2	365	.....	
3811	K.B.	3:47 p.m.		40,	From 3:25 to 5:05		460	.....	
3812	K.B.	4:05 p.m.	...	40,	p.m. the boat		550	.....	
3813	K.B.	4:25 p.m.		40,	drifted from above		735	.....	
					to following position				
3814	K.B.	4:51 p.m.		40,	32° 21.8	117° 20.7	915	.....	
					September 25, 1913				
3815	K.B.	2:04 p.m.		40,	32 22.3	117 21.1	73	.....	
3816	K.B.	2:23 p.m.		40,	32 22.0	117 20.8	735	.....	
3817	K.B.	3:26 p.m.	.	40,	32 23.5	117 21.7	55	.....	
3818	K.B.	3:35 p.m.		40,	32 22.4	117 21.2	73	.....	
3819	K.B.	3:44 p.m.		40,	32 22.3	117 21.1	92	.....	
3820	K.B.	3:53 p.m.		40,	32 22.2	117 21.0	110	.....	
3821	K.B.	4:02 p.m.		40,	32 21.6	117 20.8	147	.....	
3822	K.B.	5:38 p.m.		40,	32 23.0	117 21.3	185	.....	
3823	K.B.	5:52 p.m.		40,	32 22.4	117 21.2	230	.....	

Table 3.—Plankton Field Data—(*Continued*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					September 25, 1913				
3824	K.B.	6:06 p.m.	....	40_5	From 5:50 to 7:40		110	.....	
3825	K.B.	6:19 p.m.	....	40_4	p.m. the boat		550	.....	
3826	K.B.	6:47 p.m.	....	40_4	drifted from above		735	.....	
					to following position				
3827	K.B.	7:10 p.m.	....	40_4	32° 20.0	117° 19.3	915	.....	
3828	K.B.	11:20 p.m.	....	40_4	32 22	117 21	9	.....	
					September 26, 1913				
3829	K.B.	11:36 p.m.	....	40_4	From 11:15 p.m. on		460	.....	
3830	K.B.	12:02 a.m.	....	40_4	Sept. 25 to 5:15		5	4691, ...	
3831	K.B.	12:08 a.m.	....	40_4	a.m. on Sept. 26		9	.....	
3832	K.B.	12:16 a.m.	....	40_4	boat drifted from		275	.....	
3833	K.B.	12:30 a.m.	....	40_4	above to following		365	.....	
3834	K.B.	4:55 a.m.	....	40_2	position		1	4692, ...	
3835	K.B.	5:01 a.m.	....	40_2	32° 9′	117° 19′	27	.....	
3836	K.B.	7:20 a.m.	....	40_4	32 22.4	117 21.2	735	.....	
3837	K.B.	7:57 a.m.	....	40_4	32 22.4	117 21.2	915	.....	
3838	K.B.	8:25 a.m.	....	40_4	32 22.4	117 21.2	1	4693, ...	
					May 8, 1914				
3839	000c	5:42 a.m.	5	40_5	32 22.7	117 19.2	0	.....	Cloudy and calm until
3840	K.000	5:50 a.m.	6	40_5	From 5:38 to 9:17		9	4695, ...	7:00 a.m.; sun out
3841	K.000	5:50 a.m.	6	40_5	a.m. the boat		0	.....	intermittently until
3842	K.000c	5:50 a.m.	6	40_5	steamed from the		0	.....	9:00 a.m.; bright
3843	K.000	6:14 a.m.	5	40_5	above to the		9	4696, 4697	and clear throughout
3844	K.000	6:14 a.m.	5	40_5	following position		0	.....	remainder of day
3845	K.000c	6:14 a.m.	5	40_5			0	.....	
3846	K.000	6:28 a.m.	6	40_5			17	4698, 4699	
3847	K.000	6:28 a.m.	6	40_5			0	.....	
3848	K.000c	6:28 a.m.	6	40_5			0	.....	
3849	K.000	6:43 a.m.	5	40_5			17	4700, 4701	
3850	K.000	6:43 a.m.	5	40_5			0	.....	
3851	K.000c	6:43 a.m.	5	40_5			0	.....	All K.000 and K.000c
3852	K.000	6:53 a.m.	5	40_5			44	4703, 4704	hauls during May,
3853	K.000	6:53 a.m.	5	40_5			0	4702, ...	1914, were made
3854	K.000c	6:53 a.m.	5	40_5			0	4702, ...	while the boat was
3855	K.000	7:11 a.m.	5	40_5			44	.....	slowly steaming
3856	K.000	7:11 a.m.	5	40_5			0	.....	against the drift
3857	K.000c	7:11 a.m.	5	40_5			0	.....	
3858	K.000	7:28 a.m.	5	40_5			88	4706, 4707	
3859	K.000	7:28 a.m.	5	40_5			0	4705, ...	
3860	K.000c	7:28 a.m.	5	40_5			0	4705, ...	
3861	K.000	7:45 a.m.	5	40_5			90	4708, 4709	
3862	K.000	7:45 a.m.	5	40_5			0	.....	
3863	K.000c	7:45 a.m.	5	40_5			0	.....	
3864	K.000	8:02 a.m.	5	40_5			128	4711, 4712	
3865	K.000	8:02 a.m.	5	40_5			0	4710, ...	
3866	K.000c	8:02 a.m.	5	40_5			0	4710, ...	
3867	K.000	8:21 a.m.	5	40_5			133	4713, 4714	
3868	K.000	8:21 a.m.	5	40_5			0	.....	
3869	K.000c	8:21 a.m.	5	40_5			0	.....	
3870	K.000	8:39 a.m.	5	40_5			168	4716, 4717	
3872	K.000c	8:39 a.m.	5	40_5			0	4715, ...	
3873	K.000	8:57 a.m.	5	40_5			170	4718, ...	
3874	K.000	8:57 a.m.	5	40_5			0	.....	
3875	K.000c	8:57 a.m.	5	40_5			0	.....	
3876	000	9:12 a.m.	5	40_5			0	4720, ...	
3877	000c	9:12 a.m.	5	40_5	32° 22.7	117° 18.9	0	4720, ...	
3878	000	10:12 a.m.	5	40_5	32 22.7	117 19.2	0	4721, ...	From 10:12 am. to
3879	000c	10:12 a.m.	5	40_5	32 22.7	117 19.2	0	4721, ...	6:05 p.m. the position
3880	K.000	10:23 a.m.	5	40_5	32 22.7	117 19.2	8	4722, ...	was maintained
3881	K.000	10:23 a.m.	5	40_5	32 22.7	117 19.2	0	.....	within ¼ mile of
3882	K.000c	10:23 a.m.	5	40_5	32 22.7	117 19.2	0	.....	that entered
3883	K.000	10:34 a.m.	5	40_5	32 22.7	117 19.2	9	4723, 4724	

TABLE 3.—PLANKTON FIELD DATA—(*Continued*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					May 8, 1914				
3884	K.000	10:34 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3885	K.000c	10:34 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3886	K.000	10:45 a.m.	5	40_5	32 22.7	117 19.2	16	4725, ...	Imperfectly closed
3887	K.000	10:45 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3888	K.000c	10:45 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3889	K.000	10:56 a.m.	5	40_5	32 22.7	117 19.2	18	4726, ...	Imperfectly closed
3890	K.000	10:56 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3891	K.000c	10:56 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3892	K.000	11:10 a.m.	5	40_5	32 22.7	117 19.2	44	4727, ...	Failed to close
3893	K.000	11:10 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3894	K.000c	11:10 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3895	K.000	11:22 a.m.	5	40_5	32 22.7	117 19.2	40	4729, ...	Failed to close
3896	K.000	11:22 a.m.	5	40_5	32 22.7	117 19.2	0	4728, ...	
3897	K.000c	11:22 a.m.	5	40_5	32 22.7	117 19.2	0	4728, ...	
3898	K.000	11:44 a.m.	5	40_5	32 22.7	117 19.2	40	4730, ...	Failed to close
3899	K.000	11:44 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3900	K.000c	11:44 a.m.	5	40_5	32 22.7	117 19.2	0	.....	
3901	000c	11:52 a.m.	28	40_5	32 22.7	117 19.2	0	4731, ...	
3902	K.000	12:50 p.m.	5	40_5	32 22.7	117 19.2	46	4732, 4733	
3903	K.000	12:50 p.m.	5	40_5	32 22.7	117 19.2	0	.....	
3904	K.000c	12:50 p.m.	5	40_5	32 22.7	117 19.2	0	.....	
3905	K.000	1:02 p.m.	5	40_5	32 22.7	117 19.2	88	4734, 4735	Failed to close
3906	K.000	1:02 p.m.	5	40_5	32 22.7	117 19.2	0	.....	
3907	K.000c	1:02 p.m.	5	40_5	32 22.7	117 19.2	0	.....	
3908	K.000	1:19 p.m.	5	40_5	32 22.7	117 19.2	88	4736, 4737	
3909	K.000	1:19 p.m.	5	40_5	32 22.7	117 19.2	0	.....	
3910	K.000c	1:19 p.m.	5	40_5	32 22.7	117 19.2	0	.....	
3911	K.000	1:34 p.m.	5	40_5	32 22.7	117 19.2	124	4738, ...	Failed to close
3912	K.000	1:34 p.m.	5	40_5	32 22.7	117 19.2	0	.....	
3913	K.000c	1:34 p.m.	5	40_5	32 22.7	117 19.2	0	.....	
3914	K.000	2:00 p.m.	5	40_5	32 22.7	117 19.2	125	.....	
3915	000	6:05 p.m.	7	40_5	32 22.7	117 19.2	0	4741, ...	Sunset, 6:33 p.m.;
3916	000c	6:05 p.m.	7	40_5			0	4741, ...	bright moonlight
3917	K.000	6:25 p.m.	5	40_5			9	4742, 4743	throughout evening
3918	K.000	6:25 p.m.	5	40_5			0	.....	
3919	K.000c	6:25 p.m.	5	40_5			0	.....	
3920	K.000	6:37 p.m.	5	40_5			9	4744, ...	
3921	K.000	6:37 p.m.	5	40_5			0	.....	
3922	K.000c	6:37 p.m.	5	40_5			0	.....	
3923	K.000	6:50 p.m.	5	40_5			18	.....	
3924	K.000	6:50 p.m.	5	40_5			0	.....	
3925	K.000c	6:50 p.m.	5	40_5			0	.....	
3926	K.000	7:03 p.m.	5	40_5			18	.....	
3927	K.000	7:03 p.m.	5	40_5			0	4747, ...	
3928	K.000c	7:03 p.m.	5	40_5			0	4747, ...	
3929	K.000	7:16 p.m.	5	40_5			45	4748, 4749	
3930	K.000	7:16 p.m.	5	40_5			0	.....	
3931	K.000c	7:16 p.m.	5	40_5			0	.....	
3932	K.000	7:35 p.m.	5	40_5			45	4750, ...	
3933	K.000	7:35 p.m.	5	40_5			0	.....	
3934	K.000c	7:35 p.m.	5	40_5			0	.....	
3935	K.000	7:49 p.m.	5	40_5			90	4751, 4752	
3936	K.000	7:49 p.m.	5	40_5	From 6:05 to 9:05		0	.....	
3937	K.000c	7:49 p.m.	5	40_5	p.m. the boat		0	.....	
3938	K.000	8:09 p.m.	5	40_5	steamed from the		136	4753, ...	
3939	K.000	8:09 p.m.	5	40_5	above to the		0	.....	
3940	K.000c	8:09 p.m.	5	40_5	following position		0	.....	
3941	K.000	8:40 p.m.	5	40_5			165	4754, 4755	
3942	K.000	8:40 p.m.	5	40_5			0	.....	
3943	K.000c	8:40 p.m.	5	40_5			0	.....	
3944	000c	8:58 p.m.	5	40_5	32° 22.1	117° 18.8	0	4756, ...	

Table 3.—Plankton Field Data—(*Continued*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					May 9, 1914				
3945	000	9:54 a.m.	5	41_4	32 21.0	117 24.0	0	4763, ...	Cloudy until 10 a.m.,
3946	000c	9:54 a.m.	5	41_4			0	4763, ...	then bright and
3947	K.000	10:13 a.m.	5	41_4			9	4764, 4765	clear; heavy sea
3948	K.000	10:13 a.m.	5	41_4			0	.....	
3949	K.000c	10:13 a.m.	5	41_4			0	.....	
3950	K.000	10:27 a.m.	5	41_4	From 9:46 a.m. to		9	....., 4768	
3951	K.000	10:27 a.m.	5	41_4	12:25 p.m. the boat		0	4766, ...	
3952	K.000c	10:27 a.m.	5	41_4	steamed from the		0	4766, ...	
3953	K.000	10:41 a.m.	5	41_4	above to the		17	4769, ...	Failed to close
3954	K.000	10:41 a.m.	5	41_4	following position		0	.....	
3955	K.000c	10:41 a.m.	5	41_4			0	.....	
3956	K.000	10:53 a.m.	5	41_4			18	4770, ...	
3957	K.000	10:53 a.m.	5	41_4			0	.....	
3958	K.000c	10:53 a.m.	5	41_4			0	.....	
3959	K.000	12:23 p.m.	5	41_4			44	....., 4772	
3960	K.000	12:23 p.m.	5	41_4			0	4771, ...	
3961	K.000c	12:23 p.m.	5	41_4	32° 21.′5	117° 23.′9	0	4771, ...	
3962	K.000	12:38 p.m.	5	41_4			46	.....	
3963	K.000	12:38 p.m.	5	41_4			0	.....	
3964	K.000c	12:38 p.m.	5	41_4	From 12:25 to 1:20		0	.....	
3965	K.000	12:54 p.m.	5	40.5_4	p.m. the boat		46	... ., 4773	
3966	K.000	12:54 p.m.	5	40.5_4	steamed from the		0	....	
3967	K.000c	12:54 p.m.	5	40.5_4	above to the		0	.....	
3968	K.000	1:10 p.m.	5	40_4	following position		84	4774, 4775	
3969	K.000	1:10 p.m.	5	40_4			0	....., 4776	
3970	K.000c	1:10 p.m.	5	40_4			0	....., 4776	
3971	K.000	1:25 p.m.	5	40_4			137	....., 4777	
3972	K.000	1:25 p.m.	5	40_4			0	4776, ...	
3973	K.000c	1:25 p.m.	5	40_4	32° 21.′2	117° 21.′3	0	4776, ...	
					May 10, 1914				
3974	000	5:53 a.m.	5	41_4	32 21.0	117 24.0	0	4784, ...	Bright and clear
3975	000c	5:53 a.m.	5	41_4	32 21.0	117 24.0	0	4784, ...	throughout day
3976	K.000	6:06 a.m.	5	41_4	32 21.0	117 24.0	9	4785, 4786	Position throughout
3977	K.000	6:06 a.m.	5	41_4	32 21.0	117 24.0	0	.....	day maintained by
3978	K.000c	6:06 a.m.	5	41_4	32 21.0	117 24.0	0	.....	''steam'' within ¼
3979	K.000	6:17 a.m.	5	41_4	32 21.0	117 24.0	9	4787, 4788	mile of that entered
3980	K.000	6:17 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3981	K.000c	6:17 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3982	K.000	6:39 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3983	K.000c	6:39 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3984	K.000	6:49 a.m.	5	41_4	32 21.0	117 24.0	18	....., 4791	
3985	K.000	6:49 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3986	K.000c	6:49 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3987	K.000	7:30 a.m.	5	41_4	32 21.0	117 24.0	42	....., 4794	
3988	K.000	7:30 a.m.	5	41_4	32 21.0	117 24.0	0	4792, ...	
3989	K.000c	7:30 a.m.	5	41_4	32 21.0	117 24.0	0	4792, ...	
3990	K.000	7:43 a.m.	5	41_4	32 21.0	117 24.0	44	....., 4795	
3991	K.000	7:43 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3992	K.000c	7:43 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3993	K.000	7:55 a.m.	5	41_4	32 21.0	117 24.0	88	....., 4796	
3994	K.000	7:55 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3995	K.000c	7:55 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3996	K.000	8:10 a.m.	5	41_4	32 21.0	117 24.0	88	....., 4797	
3997	K.000	8:10 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3998	K.000c	8:10 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
3999	K.000	8:26 a.m.	5	41_4	32 21.0	117 24.0	130	4799, ...	
4000	K.000	8:26 a.m.	5	41_4	32 21.0	117 24.0	0	4798, ...	
4001	K.000c	8:26 a.m.	5	41_4	32 21.0	117 24.0	0	4798, ...	
4002	K.000	8:43 a.m.	5	41_4	32 21.0	117 24.0	128	.....	
4003	K.000	8:43 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
4004	K.000c	8:43 a.m.	5	41_4	32 21.0	117 24.0	0	.....	
4005	K.000	9:00 a.m.	5	41_4	32 21.0	117 24.0	174	.....	

TABLE 3.—PLANKTON FIELD DATA—(*Continued*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					May 10, 1914				
4006	K.000	9:00 a.m.	5	41,	32 21.0	117 24.0	0	4800, ...	
4007	K.000c	9:00 a.m.	5	41,	32 21.0	117 24.0	0	4800, ...	
4008	K.000	9:19 a.m.	5	41,	32 21.0	117 24.0	175	....., 4801	
4009	K.000	9:19 a.m.	5	41,	32 21.0	117 24.0	0	.....	
4010	K.000c	9:19 a.m.	5	41,	32 21.0	117 24.0	0	.....	
4011	000	9:34 a.m.	5	41,	32 21.0	117 24.0	0	4802, ...	
4012	000c	9:34 a.m.	5	41,	32 21.0	117 24.0	0	4802, ...	
					May 11, 1914				
4013	000	12:29 a.m.	5	41,	32 21.0	117 24.0	0	4814, ...	Bright moonlight
4014	000c	12:29 a.m.	5	41,			0	4814, ...	throughout night
4015	K.000	12:40 a.m.	5	41,			9	4815, 4816	
4016	K.000	12:40 a.m.	5	41,			0	.....	
4017	K.000c	12:40 a.m.	5	41,			0	.....	
4018	K.000	12:54 a.m.	5	41,			9	4817, 4818	
4019	K.000	12:54 a.m.	5	41,	From 12:27 to 4:02		0	.....	
4020	K.000c	12:54 a.m.	5	41,	a.m. the boat		0	.....	
4021	K.000	1:07 a.m.	5	41,	steamed from the		18	4819, ...	Failed to close
4022	K.000	1:07 a.m.	5	41,	above to the		0	.....	
4023	K.000c	1:07 a.m.	5	41,	following position		0	.....	
4024	K.000	1:20 a.m.	5	41,			18	.....	
4025	K.000	1:20 a.m.	5	41,			0	.....	
4026	K.000	1:38 a.m.	5	41,			46	.....	Failed to close
4027	K.000	1:38 a.m.	5	41,			0	.....	
4028	K.000	2:20 a.m.	5	41,			46	....., 4820	
4029	K.000	2:20 a.m.	5	41,			0	.....	
4030	K.000c	2:20 a.m.	5	41,			0	.....	
4031	K.000	2:36 a.m.	5	41,			90	....., 4822	
4032	K.000	2:36 a.m.	5	41,			0	4821, ...	
4033	K.000c	2:36 a.m.	5	41,			0	4821, ...	
4034	K.000	2:52 a.m.	5	41,			135	....., 4823	
4035	K.000	2:52 a.m.	5	41,			0	.....	
4036	K.000c	2:52 a.m.	5	41,			0	.....	
4037	K.000	3:13 a.m.	5	41,			185	....., 4825	
4038	K.000	3:13 a.m.	5	41,			0	.....	
4039	K.000c	3:13 a.m.	5	41,			0	.....	
4040	000	3:28 a.m.	5	41,			0	4826, ...	
4042	K.000	3:39 a.m.	5	41,			27	4827, 4828	
4043	K.000	3:53 a.m.	5	41,	32° 18′.5	117° 27′.2	30	4829, 4830	
					May 12, 1914				
4044	000	12:16 a.m.	5	40,	32 22.7	117 19.2	0	....., 4841	Cloudy but moonlight
4045	000c	12:16 a.m.	5	40,			0	....., 4841	throughout night
4046	K.000	12:30 a.m.	5	40,			9	4842, 4843	
4047	K.000	12:43 a.m.	5	40,			8	4844, ...	Failed to close
4048	K.000	12:55 a.m.	5	40,			17	4845, 4846	
4049	K.000	1:06 a.m.	5	40,			17	4847, 4848	
4050	K.000	1:19 a.m.	5	40,			35	4849, 4850	
4051	K.000	1:37 a.m.	5	40,			45	4851, ...	Failed to close
4052	K.000	1:52 a.m.	5	40,			46	4853, ...	
4053	K.000	2:07 a.m.	5	40,			86	....., 4854	
4054	K.000	2:22 a.m.	5	40,	From 12:12 to 4:10		88	....., 4856	
4055	K.000	2:39 a.m.	5	40,	a.m. the boat		119	....., 4857	
4056	K.000	2:55 a.m.	5	40,	steamed from the		137	.....	
4057	K.000	3:15 a.m.	5	40,	above to the		172	....., 4859	
4058	K.000	3:34 a.m.	5	40,	following position		172	....., 4860	
4059	000	3:55 a.m.	5	40,			0	....., 4861	
4060	000c	3:55 a.m.	5	40,			0	....., 4861	
4061	K.000	5:04 a.m.	5	40,	32° 20′.6	117° 20′.2	27	4862, 4863	
					May 14, 1915				
4062L	S.000	6:20 a.m.	15	40,	32 21.0	117 19.7	18	....., 4918	Clear and smooth
4063R	S.000	6:20 a.m.	15	40,			18	....., 4918	throughout the
4064L	S.000	6:20 a.m.	15	40,			92	....., 4919	morning
4065R	S.000	6:20 a.m.	15	40,			92	....., 4919	

TABLE 3.—PLANKTON FIELD DATA—(*Continued*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					May 14, 1915				
4066L	S.000	6:57 a.m.	15	40_4			18	....., 4921	
4067R	S.000	6:57 a.m.	15	40_4			18	....., 4921	
4068L	S.000	6:57 a.m.	15	40_4			92	....., 4922	
4069R	S.000	6:57 a.m.	15	40_4			92	....., 4922	
4070L	S.000	7:33 a.m.	15	40.5_4			18	....., 4924	
4071R	S.000	7:33 a.m.	15	40.5_4			18	....., 4924	
4072L	S.000	7:33 a.m.	15	40.5_4			92	....., 4925	
4073R	S.000	7:33 a.m.	15	40.5_4			92	....., 4925	
4074L	S.000	8:09 a.m.	15	41_4			18	....., 4927	
4075R	S.000	8:09 a.m.	15	41_4			18	....., 4927	
4076L	S.000	8:09 a.m.	15	41_4			92	....., 4928	Probably closed at
4077R	S.000	8:09 a.m.	15	41_4			92	....., 4928	20 meters
4078L	S.000	8:43 a.m.	15	$41_{3.5}$			18	....., 4930	
4079R	S.000	8:43 a.m.	15	$41_{3.5}$			18	....., 4930	
4080L	S.000	8:43 a.m.	15	$41_{3.5}$	From 4:25 to 10:50		92	....., 4931	
4081R	S.000	8:43 a.m.	15	$41_{3.5}$	a.m. the boat		92	....., 4931	
4082L	S.000	9:15 a.m.	15	41_3	drifted from the		18	....., 4933	
4083R	S.000	9:15 a.m.	15	41_3	above to the		18	....., 4933	
4084L	S.000	9:15 a.m.	15	41_3	following position		92	....., 4934	
4085R	S.000	9:15 a.m.	15	41_3			92	....., 4934	
4086L	S.000	9:45 a.m.	15	41_3			18	....., 4936	
4087R	S.000	9:45 a.m.	15	41_3			18	....., 4936	
4088L	S.000	9:45 a.m.	15	41_3			92	....., 4937	Probably closed at
4089R	S.000	9:45 a.m.	15	41_3			92	....., 4937	24 meters
4090L	S.000	10:16 a.m.	15	41_3			18	....., 4939	
4091R	S.000	10:16 a.m.	15	41_3			18	....., 4939	
4092L	S.000	10:16 a.m.	15	41_3			92	....., 4940	
4093R	S.000	10:16 a.m.	15	41_3	32° 15′.7	117° 25′.7	92	....., 4940	
4094L	S.000	12:25 p.m.	15	$40_{4.5}$	32 23.0	117 19.4	18	....., 4942	Bright, clear, and
4095R	S.000	12:25 p.m.	15	$40_{4.5}$			18	....., 4942	very rough
4096L	S.000	12:25 p.m.	15	$40_{4.5}$	From 12:10 to 1:30		92	....., 4943	
4097R	S.000	12:25 p.m.	15	$40_{4.5}$	p.m. the boat		92	....., 4943	
4098L	S.000	12:55 p.m.	15	40_4	drifted from the		18	....., 4945	
4099R	S.000	12:55 p.m.	15	40_4	above to the		18	....., 4945	
4100L	S.000	12:55 p.m.	15	40_4	following position		92	....., 4946	
4101R	S.000	12:55 p.m.	15	40_4	32° 21′.1	117° 19′.3	92	....., 4946	
					May 15, 1915				
4102L	S.000	5:32 a.m.	15	40_4	32 22.4	117 21.2	18	....., 4948	Bright and clear
4103R	S.000	5:32 a.m.	15	40_4			18	....., 4948	throughout day
4104L	S.000	5:32 a.m.	15	40_4			92	....., 4949	
4105R	S.000	5:32 a.m.	15	40_4			92	....., 4949	
4106L	S.000	6:08 a.m.	15	40_4			18	....., 4951	
4107R	S.000	6:08 a.m.	15	40_4			18	....., 4951	
4108L	S.000	6:08 a.m.	15	40_4			92	....., 4952	
4109R	S.000	6:08 a.m.	15	40_4			92	....., 4952	
4110L	S.000	6:36 a.m.	15	40_4			18	....., 4954	
4111R	S.000	6:36 a.m.	15	40_4			18	....., 4954	
4112L	S.000	6:36 a.m.	15	40_4			92	.....	Failed to close
4113R	S.000	6:36 a.m.	15	40_4			92	.....	
4114L	S.000	7:20 a.m.	15	$40_{3.5}$			18	....., 4956	
4115R	S.000	7:20 a.m.	15	$40_{3.5}$			18	....., 4956	
4116L	S.000	7:20 a.m.	15	$40_{3.5}$			92	....., 4957	
4117R	S.000	7:20 a.m.	15	$40_{3.5}$			92	....., 4957	
4118L	S.000	7:53 a.m.	15	40_3	From 5:20 to 9:25		18	....., 4959	
4119R	S.000	7:53 a.m.	15	40_3	a.m. the boat		18	....., 4959	
4120L	S.000	7:53 a.m.	15	40_3	drifted from the		92	....., 4960	
4121R	S.000	7:53 a.m.	15	40_3	above to the		92	....., 4960	
4122L	S.000	8:25 a.m.	15	40_3	following position		18	....., 4962	
4123R	S.000	8:25 a.m.	15	40_3			18	....., 4962	
4124L	S.000	8:25 a.m.	15	40_3			92	....., 4963	
4125R	S.000	8:25 a.m.	15	40_3			92	....., 4963	

TABLE 3.—PLANKTON FIELD DATA—(*Continued*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					May 15, 1915				
4126L	S.000	8:55 a.m.	15	40_3			18	.....	Failed to close
4127R	S.000	8:55 a.m.	15	40_3			18	.....	
4128L	S.000	8:55 a.m.	15	40_3			73	....., 4965	
4129R	S.000	8:55 a.m.	15	40_3	32° 15.0′	117° 19.0′	73	....., 4965	
4130L	S.000	10:37 a.m.	15	40_5	32 23.0	117 19.1	18	....., 4967	
4131R	S.000	10:37 a.m.	15	40_5			18	....., 4967	
4132L	S.000	10:37 a.m.	15	40_5			92	.....	Failed to close
4133R	S.000	10:37 a.m.	15	40_5			92	.....	
4134L	S.000	11:07 a.m.	15	40_4			18	....., 4969	
4135R	S.000	11:07 a.m.	15	40_4			18	....., 4969	
4136L	S.000	11:07 a.m.	15	40_4			92	.....	Probably closed high
4137R	S.000	11:07 a.m.	15	40_4			92	.....	
4138L	S.000	11:43 a.m.	15	40_4	From 10:30 a.m. to		42	....., 4971	
4139R	S.000	11:43 a.m.	15	40_4	1:15 p.m. the boat		42	....., 4971	
4140L	S.000	11:43 a.m.	15	40_4	drifted from the		92	....., 4972	
4141R	S.000	11:43 a.m.	15	40_4	above to the		92	....., 4972	
4142L	S.000	12:35 p.m.	15	40_4	following position		18	....., 4974	
4143R	S.000	12:35 p.m.	15	40_4			18	....., 4974	
4144L	S.000	12:35 p.m.	15	40_4			92	.....	
4145R	S.000	12:35 p.m.	15	40_4			92	.....	Failed to close
4146L	S.000	1:08 p.m.	15	40_4			18	....., 4976	
4147R	S.000	1:08 p.m.	15	40_4			18	....., 4976	
4148L	S.000	1:08 p.m.	15	40_4			92	....., 4977	Opened at 73 meters
4149R	S.000	1:08 p.m.	15	40_4	32° 19.2′	117° 18.8′	92	....., 4977	
					May 16, 1915				
4150L	S.000	5:27 a.m.	15	40_4	32 20.0	117 20.0	18	....., 4979	Cloudy and smooth
4151R	S.000	5:27 a.m.	15	40_4			18	....., 4979	throughout day
4152L	S.000	5:27 a.m.	15	40_4			92	....., 4980	
4153R	S.000	5:27 a.m.	15	40_4			92	....., 4980	
4154L	S.000	6:00 a.m.	15	40_4			18	....., 4982	
4155R	S.000	6:00 a.m.	15	40_4			18	....., 4982	
4156L	S.000	6:00 a.m.	15	40_4			92	....., 4983	Probably closed at
4157R	S.000	6:00 a.m.	15	40_4			92	....., 4983	84 meters
4158L	S.000	6:27 a.m.	15	40_4			18	....., 4985	
4159R	S.000	6:27 a.m.	15	40_4			18	....., 4985	
4160L	S.000	6:27 a.m.	15	40_4			92	....., 4986	
4161R	S.000	6:27 a.m.	15	40_4			92	....., 4986	
4162L	S.000	6:56 a.m.	15	40_4	From 5:15 to 11:45		18	....., 4988	
4163R	S.000	6:56 a.m.	15	40_4	a.m. the boat		18	....., 4988	
4164L	S.000	6:56 a.m.	15	40_4	drifted from the		92	....., 4989	
4165R	S.000	6:56 a.m.	15	40_4	above to the		92	....., 4989	
4166L	S.000	7:31 a.m.	15	40_4	following position		18	....., 4991	
4167R	S.000	7:31 a.m.	15	40_4			18	....., 4991	
4168L	S.000	7:31 a.m.	15	40_4			92	....., 4992	
4169R	S.000	7:31 a.m.	15	40_4			92	....., 4992	
4170L	S.000	7:59 a.m.	15	40_4			18	....., 4994	
4171R	S.000	7:59 a.m.	15	40_4			18	....., 4994	
4172L	S.000	7:59 a.m.	15	40_4			92	....., 4995	
4173R	S.000	7:59 a.m.	15	40_4			92	....., 4995	
4174L	S.000	8:28 a.m.	15	40_4			18	....., 4997	
4175R	S.000	8:28 a.m.	15	40_4			18	....., 4997	
4176L	S.000	8:28 a.m.	15	40_4			92	....., 4998	
4177R	S.000	8:28 a.m.	15	40_4			92	....., 4998	
4178L	S.000	8:56 a.m.	15	40_4			18	....., 5000	
4179R	S.000	8:56 a.m.	15	40_4			18	....., 5000	
4180L	S.000	8:56 a.m.	15	40_4			92	....., 5001	
4181R	S.000	8:56 a.m.	15	40_4			92	....., 5001	
4182L	S.000	9:24 a.m.	15	40_4			18	....., 5003	
4183R	S.000	9:24 a.m.	15	40_4			18	....., 5003	
4184L	S.000	9:24 a.m.	15	40_4			92	....., 5004	
4185R	S.000	9:24 a.m.	15	40_4			92	....., 5004	
4186L	S.000	9:52 a.m.	15	40_4			18	....., 5006	

Table 3.—Plankton Field Data—(*Concluded*)

Haul number	Apparatus used	Time of day	Duration	Section	Position N lat.	Position W long.	Depth in meters	Water sample numbers	Remarks
					May 16, 1915				
4187R	S.000	9:52 a.m.	15	40_4			18	....., 5006	
4188L	S.000	9:52 a.m.	15	40_4			92	....., 5007	
4189R	S.000	9:52 a.m.	15	40_4			92	....., 5007	
4190L	S.000	10:17 a.m.	15	40_4			18	....., 5009	
4191R	S.000	10:17 a.m.	15	40_4			18	....., 5009	
4192L	S.000	10:17 a.m.	15	40_4			92	....., 5010	
4193R	S.000	10:17 a.m.	15	40_4			92	....., 5010	
4194L	S.000	10:42 a.m.	15	40_4			18	....., 5012	
4195R	S.000	10:42 a.m.	15	40_4			18	....., 5012	
4196L	S.000	10:42 a.m.	15	40_4			92	....., 5013	
4097R	S.000	10:42 a.m.	15	40_4			92	....., 5013	
4198L	S.000	11:08 a.m.	15	40_4			18	....., 5015	
4199R	S.000	11:08 a.m.	15	40_4			18	....., 5015	
4200L	S.000	11:08 a.m.	15	40_4			92	....., 5016	
4201R	S.000	11:08 a.m.	15	40_4			92	....., 5016	
4202L	S.000	11:33 a.m.	15	40_4			22	....., 5018	
4203R	S.000	11:33 a.m.	15	40_4			22	....., 5018	
4204L	S.000	11:33 a.m.	15	40_4			92	....., 5019	
4205R	S.000	11:33 a.m.	15	40_4	32° 20.'3	117° 19.'0	92	....., 5019	

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